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April 28, 2000

Dear Friends:

The new millennium is upon us. It is a time of celebration and excitement. We celebrate the achievements that have been made and look forward with anticipation to the future. While public health should celebrate its achievements, looking ahead and planning for the future demonstrates wisdom. We are all stewards of community health and obligated to serve wisely. The next century marks a critical opportunity to do just that.

This report marks the conclusion of the Virginia *Turning Point* strategic planning initiative. A collaborative effort between the Virginia Department of Health and the Virginia Hospital & Healthcare Association to strengthen public health in the next century. In these two short years, *Turning Point* has reached out to the community and asked, "what are your health concerns" and how should they be addressed?" Responses to those and other questions have stimulated critical thinking about the future roles and responsibilities of public health.

Throughout this report you will see the fruit of *Turning Point's* labor. It is truly amazing to see what can be produced when citizens, organizations, and leaders put their heads together to devise creative solutions to current community health problems

In order to maximize health in the community can we ever be satisfied with the status quo? The answer is a resounding no! Strategic planning and preparing for the future must be an ongoing activity for organizations public and private. *Turning Point* has taught public health that it must continue to seek new dialogue with a variety of partners in order to solve community health problems.

When the idea of *Turning Point* began in 1997, we wondered if it would work? The short answer - it must, if we are to improve the health of our communities. I am proud of this effort and our accomplishments. *Turning Point* has achieved many goals – the most important has been increased awareness of the value of prevention activities to enhance the health of all Virginians. Those efforts will truly make us healthier as individuals, communities, Virginians and Americans. The biggest payoff will, of course, be for our children. With continued support form the Robert Wood Johnson foundation, *Turning Point* will have an opportunity to do more in the next four years. Thank you for your interest in improving the health of all Virginians.

Sincerely,

Lester "Skip" Lamb
Steering Committee Chairman

EXECUTIVE SUMMARY

In January 1998, Virginia embarked on a critical journey. This journey of discovery enabled public health and its partners to probe the strengths and weaknesses of the public health system and community health in general to determine what changes needed to be made to ensure healthy communities in the next century. The process was demanding. The national sponsors, the Robert Wood Johnson and W.K. Kellogg foundations, were looking for an assessment of public health, its mission, roles and responsibilities at both the state and community level. They requested that these efforts be done in collaboration with other community stakeholders. Efforts were geared toward grassroots community development as well as policy initiatives at the state level. This bifurcated process was designed to try and identify as many concerns as possible – to leave no stone unturned. The result of this two-year effort – a strategic plan to strengthen and transform Virginia's public health system in the next century. Virginia is fortunate that three localities are also participating in this strategic planning effort, the city of Norfolk, Prince William County and the New Century Council (comprised of cities and counties that surround Roanoke).

The Virginia Department of Health and the Virginia Hospital & Healthcare Association joined forces to complete the assessment and craft solutions. They were not alone. Other community stakeholders share in the vision and implementation of *Turning Point*. Together these organizations are working to improve the health of Virginia's communities.

Turning Point began its strategic planning effort with four specific goals in mind.

Community Outreach: Reach consensus among diverse stakeholders and decision-makers at the state and community levels on their roles and responsibilities for public health.

Improve Understanding About Public Health: Improve state and local policy leaders understanding of and value for the contribution that public health agencies and their partners make in creating and sustaining health communities.

Member Organizations

- Virginia Hospital & Healthcare Association
- Virginia Department of Health
- Virginia Chamber of Commerce
- Virginia Public Health Association
- Medical Society of Virginia
- Virginia Association of Health Plans
- Virginia Department of Environmental Quality
- Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services
- Virginia Department of Medical Assistance Services
- Joint Commission on Health Care
- Virginia Health Care Foundation
- Baptist General Convention of Virginia
- National Conference for Community Justice
- Virginia Association of Local Human Services Officials
- United Way of Virginia
- University of Virginia Health Sciences Center
- Local Turning Point partnership representatives.

Increase Information-Based Decision Making: Place public health leaders and their partners in the pivotal role of developing, collecting, analyzing and sharing data that support information-based decisions for Virginia's communities.

Enhance Workforce Education and Training: ensure that the Commonwealth has a skilled workforce to perform core public health functions in order to improve the health of Virginians.

Year One was straightforward and relatively simple. Gather information from the community through polling, focus groups and research. Use that feedback to identify critical areas of concern. Access to Care, Communicable Disease Control, Environmental Health, Health Education and Communication, and Health Information were seen as the most crucial elements to a robust public health system. Future efforts would be focused in these areas.

The tough work began in Year Two. Workgroups were created to analyze, expose gaps and obstacles and seek consensus among diverse interests. *Turning Point* is indebted to these individuals for an amazing work product. Twenty-six specific implementation strategies were crafted to strengthen public health in the next century.

These decisions were not made in isolation. *Turning Point* commissioned two studies to provide quantitative and qualitative research findings. The performance and capacity study compared and contrasted state and local perspectives on core public health functions and essential public health services. Researchers identified several areas for improvement in how the Virginia Department of Health serves the health of the public. In addition, Steering Committee members participated in a scenario planning exercise to envision healthy communities in the future.

Evaluating the nature of Virginia's laws, statutes and regulations that govern public health practice was another critical research component for *Turning Point*. Consultants reviewed the constitutional, statutory and administrative laws and interviewed key public and private health leaders. Generally, Virginia was found to be ahead of the nation in terms of its public health statutes. There were several areas identified by the consultants for improvement. They suggested in order to ease understanding and ensure the law is upheld, Virginia should consider consolidating disease classifications and strengthening health information privacy rights.

Steering Committee members worked to identify the trends and forces that affect public health and develop strategies to achieve success. Critical areas that were expected to have a major impact on public health by the Year 2010 were: advances in technology/information systems, the aging population and political change. Steering Committee members devised a series of strategies to achieve *Turning Point*'s goals.

Throughout this two-year process, *Turning Point* created a plan to improve community health. The Robert Wood Johnson Foundation has chosen to provide critical implementation funds for states to continue health improvement efforts. Rather than choose one of the twenty-six potential strategies, Virginia elected to combine several strategies from the workgroups into a Community Health Improvement Project. The project incorporates the elements of assessing the economics of prevention, community health needs assessment and public awareness. This implementation strategy will ensure that Virginians will identify health concerns, develop strategies that will have the greatest impact and create greater awareness of health issues in the community.

Because public health issues and concerns cross state lines, the Robert Wood Johnson Foundation is also funding several collaborative activities for multi-state participation. Virginia's *Turning Point* initiative has chosen to apply for two national collaboratives: Leadership and Social Marketing. There is the potential for Virginia to participate in both collaboratives. Through this initiative, Virginia will not only address health concerns within our borders, but share in health improvement for all Americans.

Public health is at a crossroads. In order to prepare for the next millennium, public health reached out to partner organizations at the state and local level to develop common solutions to critical community health needs. *Turning Point* has identified strategies to strengthen public health in the next century. The stage is set. Our success will depend on continued collaboration and refining the overall vision of improving the health of our communities.

TURNING POINT INTRODUCTION

Virginia is a relatively healthy place to live, work and raise a family. Why is that? And does everyone think so? What makes Virginia a healthy place to live? Is it our booming economy, health care facilities, excellent education opportunities, natural resources? Yes it is - but it is so much more. The absence of disease, efforts to reduce chronic illness, smoking prevention programs, strengthening the family, restaurant and health care facility inspections, and emergency medical programs among other activities all contribute to the health of the community.

The health of the community is a reflection of the health of its citizens. How healthy are you? What do you or can you do to contribute to a healthy community as well? Eat right and exercise, don't pollute. While these daily activities make you feel better they also strengthen the health of the public, generally. Community lies at the heart of public health. The W.K. Kellogg Community-Based Public Health initiative stated, "Success with public health policies and program depend upon the extent to which they reflect the communities values and priorities."

In order to design a public health system that better reflects the needs of the community, Virginia applied to participate in an initiative called *Turning Point*.

Turning Point is a strategic planning grant that was awarded to fourteen states by the Robert Wood Johnson and W.K. Kellogg foundations in December of 1997. The Virginia Department of Health (VDH) and the Virginia Hospital & Healthcare Association (VHHA) were awarded the grant in Virginia to strengthen public health in the Commonwealth to better face the approaching health challenges of the new millennium. The partnership between VDH and VHHA highlights one of the most basic principles of the *Turning Point* initiative: the collaboration between the public and private sector to maximize community health.

The Robert Wood Johnson and W.K. Kellogg Foundations awarded grants to both state-level projects and local partnerships. *Turning Point* has asked these groups to improve public health together through a strategic planning process. This process has included: planning to address public health challenges; restructuring public health agencies where appropriate; evaluating the use of technology; analyzing financial and human resources needed; and implementing local plans as directed by local and state priorities. Virginia's three local partnerships, the City of Norfolk, the New Century Council, and the Prince William Partnerships for Health, have gone into their communities to gain local input into their strategic planning process. Interestingly, many of the key health issues that arose in local forums were also mentioned by the state level workgroups. For instance, both the state and local partnerships focused on environmental health as a key area to address in planning for the future of community health. Virginia's *Turning Point* initiative is led by a twenty-five member steering

The key issues that arose from the public out of these interactions were: Access to Health Care, Environmental Health, Communicable Disease Control, Health Education & Communication, and Health Information.

Turning Point Steering Committee Members

Sandra D. Bowen, Senior Vice President
Virginia Chamber of Commerce
Ron Carlee, Legislative Chair
Virginia Association of Local Human Services Officials
Pat Finnerty, Executive Director
Joint Commission on Health Care
Robert W. Glenn, Jr.
The Issues Management Group
Cora Gray
Virginia Public Health Association
Jonathan R. Katz, Rabbi
Prince William Interfaith Volunteer Caregivers; Congregation Ner Shalom
Richard Kellogg, Commissioner
Virginia Department of Mental Health, Mental Retardation & Substance Abuse Services
Lester L. "Skip" Lamb, Chairman
Virginia Board of Health
William L. Lukhard
United Way of Virginia
E. Anne Peterson, MD, MPH, State Health Commissioner
Virginia Department of Health
Deborah D. Oswalt, Executive Director
Virginia Health Care Foundation
Lynn Warren, Director of Policy
Virginia Association of Health Plans
Robert Reynolds, MD, DrPH, Vice Provost for Health Sciences
University of Virginia Health Sciences Center
Laurens Sartoris, President
Virginia Hospital & Healthcare Association
Cessar L. Scott, Executive Minister
Baptist General Convention of Virginia
Dennis Smith, Director
Virginia Department of Medical Assistance Services
Jeff Spence, D.Min
National Conference for Community Justice
Shirley Tyree
Norfolk City Health District
Kenneth D. Tuck, MD, Past President
Medical Society of Virginia

committee comprised of a number of key stakeholders in the health care delivery system, faith community, state and local officials, education, business community, and non-profit organizations.

Turning Point has had a significant impact on public health in Virginia. Systems change can take time and steps forward are crucial to maintain momentum. As the process unfolded, several recommendations have already been implemented to strengthen public health. For instance, advances in telemedicine stemmed from *Turning Point* research. *Turning Point* has also provided the newly appointed State Health Commissioner information on public health issues critical to Virginia and a stronger basis for the use of strategic planning in the agency's decision making. *Turning Point* has shown public health leaders across the Commonwealth that systems change is unavoidable in the current health policy environment and now is the time for the key players to adapt, grow or be left behind. *Turning Point* is already helping the Virginia Department of Health change to meet the needs of the new millennium. In its first year, *Turning Point* focused on community outreach for the purpose of determining the public's perceptions of health needs and governmental public health agencies. This information was gathered through group presentations, regional forums, key informant discussion groups, and a statewide telephone survey. *Turning Point* sought information about critical health concerns and how those concerns should be addressed. The key issues that arose from the public out of these interactions were: Access to Health Care, Environmental Health, Communicable Disease Control, Health Education and Communication, and Health Information. These five key areas were stressed by Virginians as prominent health concerns now and in the future. At the conclusion of the first year, the Steering Committee published an interim report that highlighted outreach activities.

In the second year, *Turning Point* formed five workgroups, each one charged with examining one of the five key areas. These workgroup consisted of health care leaders with specific knowledge and expertise in their respective field. Individuals representing diverse groups both internal and external to VDH were represented. The five workgroups met through the summer of 1999 to analyze the issues and formulate implementation strategies. These papers outline specific steps to improving public health. Each white paper presents several implementation strategies that involve partners in public health working together to meet future community health needs.

In addition to workgroup activities, *Turning Point* also spent its second year assessing the health department's central office and health districts' ability to carry out the core functions of public health. Public health practice is based in a legal framework, *Turning Point* hired a legal consultant to evaluate Virginia's public health laws. Also, both the Virginia *Turning Point* Steering Committee and the three local partnerships participated in scenario planning exercises that asked them to look ahead ten years to envision *Turning Point*'s impact on public health. In this exercise, the importance of prevention activities and community partnerships in improving public health were identified as very important to enhanced community health.

Consumers are often forgotten when systems change is contemplated. *Turning Point* conducted a specific survey of citizens that utilize primary health care services in VDH's clinic settings as well as environmental health customers across the state. These activities impacted decision makers and are discussed in greater detail later in the report.

HISTORICAL BACKGROUND

Public health in Virginia has a rich history that has brought the Commonwealth from colonial Jamestown to what is now considered the sixth healthiest state in the nation. In 1610 settlers passed the first sanitation laws and throughout the years Virginia has been a leader in public health. Many of public health's "firsts" happened right here in Virginia. The Commonwealth developed some of the nation's first public safety laws, the first permanent city board of health, and the first tuberculosis training school for negro women in the 1900s.

In the 1700s, public health was mainly concerned with the development of local quarantine regulations. Petersburg passed one of the first public safety laws in the country prohibiting the use of wooden chimneys in 1748. Later that century, the first permanent city board of health was established in Petersburg. The 1800s saw this legacy of leadership grow further. Nationally, public health in the nineteenth century involved the development of sanitation regulations, hygienic laboratories, and vital statistics records programs. Virginia also developed vital records programs in 1853 by passing a law compelling the registration of births and deaths. Other laws passed in the Commonwealth allowed for the vaccination of the poor by their overseers and authorized municipal authorities to require vaccination. The state board of health was permitted by a 1872 law which was followed in 1896 with the first appropriation to the board of $2,000.

As the United States entered the twentieth century, nationally the Public Health Service concentrated on researching and investigating public health issues such as pollution and immigrant health. The early 1900s were an age of bacteriology and laboratory development; the "medicalization" of public health. In 1908 the Virginia State Board of Health was reorganized into the State Health Department. Two years later the

History of Public Health	Pre-20th Century	Early 1900s	1920s
Virginia	**1610:** First sanitation law was passed in Jamestown **1631:** The Colony of Virginia passed an act for the collection of vital statistics **1777:** Persons with small pox or other contagious diseases were required by law to leave the road on the approach of other persons	**1910:** The Bureau of Sanitary Engineering was created to supervise public water supplies, sewage, sewage treatment and swimming pools	**1921:** Bureau of Tuberculosis Education and Division of Mouth Hygiene created
National	**1700s:** Local quarantine regulations **1800s:** Sanitation regulations and some vital statistics	**T**he National Public Health Service was created (investigation, research, pollution and immigrant health) **A**ge of "bacteriology & laboratories **M**edicalization of Public Health **A**vg. life expectancy - 47.3 years	**I**nfluence of bacteriology wanes **L**ocal health departments expand **F**ederal government becomes technical and financial resource for the states **A**vg. life expectancy - 54.1 years

legislature provided the State Health Department the authority to adopt, promulgate, and enforce reasonable rules and regulations for the protection of the public health. With this power, the agency spent most of the early twentieth century fighting tuberculosis and developing vital statistics programs. Public health began to separate from the private provision of health care in this era and the federal government emerged as the technical and financial resource for public health departments.

It was mid-century when Virginia's health departments began assuring medical care to citizens. In 1941 the Maternal and Child Health Hospitalization Plan began for medically indigent maternity cases and infants. This decade was also marked by communicable diseases being replaced by heart disease, cancer, and accidents, as the leading causes of death in the United States. In the fifties, Virginia passed legislation permitting a state-local partnership for Local Health Services. This partnership still exists today and it serves as the foundation for the provision of services in most health districts. In the sixties, the federal government established Great Society programs like Medicare and Medicaid that focused on the medical care of individual patients. The importance of traditional public health issues (communicable disease control and environmental health) was surpassed by government support for community health centers and mental health services.

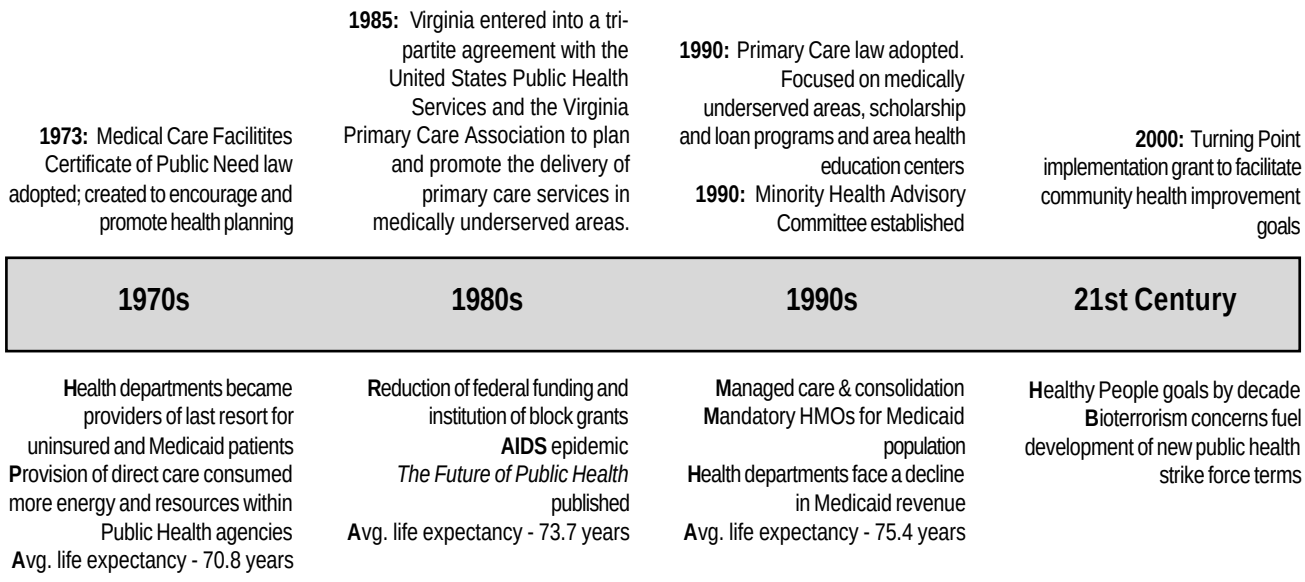
Throughout the seventies, VDH developed an emergency medical care system for the Commonwealth as well as the State Health Planning system. Nationally, public health became increasingly associated with care for the medically indigent. Health departments across the country became providers of last resort for the uninsured and Medicaid patients rejected by the private sector. The resources and energies of public health agencies were focused on the provision of direct care services. Virginia was no exception. In fiscal year 1971, the total amount of payments made to medical providers for medical care and services to Medicaid recipients in Virginia equaled over fifty four million dollars. These numbers continued to increase into the eighties, with the amount of money VDH spent on providing services to un- or underinsured individuals exceeding one hundred and forty six million dollars in the 1986-87 fiscal year. This increase in spending was accompanied by cuts in federal funding and the institution of block grants, in turn requiring local and

1930s	1940s	1950s	1960s
1930: An Act was passed to authorize cities and counties to establish a Monquito Control District	**1947:** The Division of Tuberculosis Control created **1948:** Division of Alcohol Studies and Rehabilitation was established. Virginia was the first state to have such a program	**1954:** Legislation was passed creating the State-Local Partnership for Local Public Health Services	**1960:** The Pap Smear Program for cancer was started in all Maternal and Child Health Clinics **1965:** The statewide Family Planning Program was initiated **1968:** Establishment of Emergency Medical Services **1969:** Medicaid program created
New Deal & Social Security Act of 1935 provide a boost to Public Health **C**ongress moves to categorical funding for Public Health **A**vg. life expectancy - 59.7 years	**P**redecessor of Centers for Disease Control born to control malaria **H**ill-Burton Act passed to address access to care concerns **H**eart disease, cancer and accidents replace communicable disease as leading causes of death **A**vg. life expectancy - 62.9 years	**M**edicine and biomedical research claimed credit for conquest of communicable disease - funding follows **H**ealth became equated to access to acute care services **P**ublic Health failed to develop programs for chronic disease **P**rivate foundation helped assure success of polio vaccination effort **A**vg. life expectancy - 68.2 years	**W**ar on poverty and other "Great Society" programs focused on access to care, not public health **M**edicare established **E**nvironmental functions started to be split off into separate agencies **A**vg. life expectancy - 69.7 years

state governments to provide a greater percentage of public health funding. The most recent figures show that in fiscal year 1997 the amount spent providing personal health services to 987,000 individuals increased to almost two hundred and seventeen million dollars.

Faced with the advent of managed care and consolidation, health departments across the country are still faced with increasing demands on their limited resources. In Virginia, VDH has been dealing with a reduction in revenues over the last several years. Even so, health departments continue to provide services to individuals and communities, touching over 850,000 lives each year. Some of the new and innovative programs that VDH has initiated in the recent years include the Virginia Fatherhood Campaign and Partners in Prevention. Both of these programs link the health department with community leaders to partner for outreach to improve public health. VDH also developed Senate Bill 712, an initiative to provide quality oversite of managed health care plans.

VDH serves the Commonwealth through a central office and 35 health districts made up of 119 local health department sites around Virginia. The central office consists of statewide executive leadership as well as sixteen statewide program offices. Central program offices provide operational, technical, and administrative support to health districts. Virginia's health districts range in size in terms of population and geography. Some health districts are comprised of one city, such as Richmond. Other districts are comprised of up to 10 counties, such as the Three Rivers health district. Three of Virginia's health districts (Fairfax, Arlington, and the City of Richmond) have chosen to be locally administered and their staff are local, not state, employees. All health districts are required by law to provide certain mandated services that include environmental health, maternal and child health, and communicable disease control. Many other services are provided by health departments, but these vary from locality to locality based on priorities, resources, and staffing.



GOAL AREA ONE

Reach consensus among diverse stakeholders and decision-makers at the state and community levels on the roles and responsibilities for public health functions.

Community Outreach

A critical first step in the *Turning Point* process involved gaining an understanding from the community about what they know about public health, what their critical health concerns are and how they think those health concerns should be addressed. Virginia chose to reach out to the community in an attempt to answer those questions. *Turning Point,* by its very design, is community driven. The grant focused on identifying health needs at the community level. The issues *Turning Point* examined over the course of the first year provided focus for the activities of the second and ultimately led to the proposed implementation strategies contained in this report.

Turning Point recognized that a variety of approaches to reach the community and engage individuals in a discussion about health were necessary for success. Initially, the grant identified three key strategies; a telephone survey, key informant discussion groups, and regional forums to achieve community outreach. At the conclusion of year one, *Turning Point* developed an additional survey strategy to pose these critical questions to individuals who utilize the environmental health and clinic services of local health departments.

Telephone Survey

Turning Point contracted with Professional Research Consultants, a health care market research firm, to gauge opinions about and current understanding of public health services. The survey was designed to inform citizens about current public health practices, ask about their level of knowledge regarding public health services, determine which areas of public health were the most important, ascertain which areas of public health were most effective, and gain insights into citizens' most pressing health concerns.

The sample design used for this study involved a random sample of 800 individuals throughout the Commonwealth of Virginia. Any household with a phone had the potential of being contacted for this survey (the survey does not reflect the opinions of individuals without that basic service). Given the sample size, results may be interpreted using a +/- 3.5% maximum rate of error at the 95 percent confidence level.

The vast majority (90%) of respondents felt that public health services were essential to protect the community's overall health. When asked to rank the importance of services typically provided by governmental public health agencies, the highest factors in importance were found to be:
1. Ensuring safe drinking water;
2. Having trained Emergency Medical Services personnel; and
3. Immunization programs.

The survey results challenge us to think more holistically about community health. In a follow-up question, the most pressing health concerns cited for communities were pollution and cancer, and this concern is borne out in statistical data. In terms of reducing the burden of chronic disease, Virginia continues to exceed the national average of age-adjusted death rates in cancer, heart disease and stroke.

Virginians also were asked where more public health money should be spent. The top responses were public health education, prevention activities, and health care for the uninsured.

The telephone survey confirmed some suspicions regarding the level of understanding about public health by the general population. When asked: "Can you name one service provided by your local health department?" 35 percent of respondents could not come up with a single activity or program sponsored by their public health agency.

Approximately 17 percent of respondents felt that their local health departments should concentrate primarily on providing preventive health services to the general community, while 9.2 percent believed medical care services for the uninsured should be the key area of emphasis. Most respondents (69.5%) said that local health departments should remain focused on both efforts in some capacity. The complete survey questionnaire is contained in Appendix B.

Key Informant Discussion Groups

To gain community insight on issues of importance to the *Turning Point* initiative, statewide discussion groups were conducted with community leaders. Participants represented key constituencies including: business, community-based organizations, consumers, developers, education, the faith community, health care providers, insurers, local government, public health professionals, public safety representatives, and other advocates.

In preparation for the focus groups, participants were intentionally not provided with background material in advance. This was done to ensure that opinions expressed were based on their current understanding of community health issues. The diversity among the participants, together with their relative knowledge of health care issues, made for active discussion. The participants were asked to envision the future of public health, and were open and honest with both their criticisms and their suggestions for improvement.

Quotations from Key Informant Discussion Groups

Duplication of services needs to be addressed...

Do not look for a cookie-cutter approach...

Is there the political will to change?

Most participants were well-versed in their knowledge of the duties of the public health department and were able to identify numerous issues: prevention, education, wellness, environment, immunizations, communicable disease, data collection, clinical services, water and air quality, septic tank inspections, restaurant inspections, etc. It was pointed out that the over-arching responsibility of the local health department was to carry out state mandated services. However, it was recognized that partnerships and collaborative efforts varied from one region to another and that it was difficult to consistently identify Virginia Department of Health responsibilities. Unfortunately, the local health department remains the likely target for those seeking whatever services cannot be found elsewhere. Participants resisted the request to rank the importance of these major responsibilities, but it was clear that health education was the consensus opinion for top priority.

Local health department roles, as articulated by participants, varied considerably by locality. The participants recognized this distinction and believed regional solutions were appropriate. Accordingly, many local health departments have taken on a role that fills in the gaps of the given locality. Without any noted exception, the participants believed that it was time for the roles to change. Only a small number of participants thought that the Virginia Department of Health should try to provide clinical or primary care services. Participants understood that many local health departments have become the providers of last resort and have been relegated to a role of filling gaps within the local community. The participants' consensus was that the state should identify mandated programs and provide overall coordination of health programs, while scaling back on direct primary care service delivery. They strongly felt that clinical and primary care services could be provided by the private sector. Participants articulated that discussions regarding barriers to accessing health care services were often misunderstood, and that there was need for community education to teach appropriate methods for access to care, especially for those without health insurance.

Consistent responses included:

- Substance abuse
- Lack of dental services
- Mental health
- Sexually transmitted diseases
- Teenage pregnancy
- Available medication for the poor and elderly
- Access to wellness-based health care
- Elder care

Participants varied in their opinion of the number one health issue facing their communities today. Consistent responses included: substance abuse, lack of dental services, mental health, sexually transmitted diseases, teenage pregnancy, available medication for the poor and elderly, access to wellness-based health care, and elder care. Perhaps the most important issue and one that should be the focus of an public health education campaign was getting people to accept responsibility for their own health and making a commitment to healthy lifestyles. This has been, and remains, one of the most significant challenges to both private providers and public health.

Generally speaking, the participants believed that baseline public health functions should be identified and implemented. Most participants felt that environmental and regulatory components should remain a function of the Virginia Department of Health, and that an important role of the state was to promote more partnerships at the local level and replicate them where appropriate. The clear role for the Virginia Department of Health was seen as overall coordination of health services and establishment of an overall health policy for the Commonwealth.

Communicating these changes and making sure nobody falls through the cracks are concerns that need to be taken into account as any changes are implemented. Past examples were cited where the state stopped providing certain services, which resulted in the private sector or the community partnerships finding ways to fill the gaps. With proper planning and coordination, participants believed that there was no reason why major changes in the focus of the Virginia public health system could not be successfully implemented.

Duplication in the collection of health data was a known issue to participants, with virtually all of the health providers, both public and private, spending time and resources on data collection. Various examples were given where data was not being collected in a useful format. Several knowledgeable participants questioned the benefit of the data and complained about the level of time and energy required for collection when there was little or no feedback on the data submitted.

The consensus among the participants was that the goal for Virginia's public heath system should be the promotion of community health and wellness. It was noted that our society suffers from information overload and that current forms of information (typically in the form of brochures) were not cost effective. Most participants believed that an appropriate ongoing role for the Virginia Department of Health was that of community health education. The Key Informant Discussion Groups report is contained in Appendix E.

Regional Forums

Seven *Turning Point* Regional Forums were designed to provide citizens with an opportunity to voice their opinions on the health needs in their communities and give feedback on the future roles and responsibilities of public health. Over 3500 invitations were sent, and notices were posted on the *Turning Point* website and in statewide and local newspapers. In addition, television and radio news outlets were made aware of the forums.

In planning the seven regional forums, it made sense to engage community leaders to determine the most appropriate date, location, and approach for gaining the information *Turning Point* sought. Regional planning teams were created to ensure *Turning Point* was responsive to local needs.

Turning Point Regional Fourms

- Abingdon
- Fairfax
- Fishersville
- Lynchburg
- Oak Grove
- Petersburg
- Yorktown

Approximately 350 individuals from around the state participated in regional forums. One of the challenges recognized was that most of the individuals who participated represented organizations that had a vested interest in the health of the community. Unfortunately, there was almost no general citizenry representation. In order to gain a more complete understanding of community health needs, individuals and their concerns must be heard.

Similar to the Key Informant Discussion Groups, these regional forums provided feedback that public health efforts should focus on health education and working on access to care challenges. Preventive care, communicable disease control, and regulatory environmental health functions were perceived as critical roles and responsibilities of public health in the future.

Consumer Survey

An additional activity undertaken by *Turning Point* in its second year was a consumer survey of clinic populations and individuals who interact with our environmental health specialists. It was felt that these critical constituents were under-represented at the key informant discussion groups and regional forums. Both those exercises seemed geared toward individuals who represented important stakeholder groups - but not individuals in the community who interface with public health at the service delivery level.

Turning Point distributed surveys across Virginia. They were displayed in full public view at each local health department and by public health nurses in primary health care clinics and environmental health specialists. The same critical questions involving the most critical health issue, how the issue should be solved, and by whom, were asked of consumers as well.

It was interesting that the consumer survey validated research done through the telephone survey of the general public. However, contrary to the findings from the key informant discussion groups, individuals who are served by the primary health care clinics do feel that the Virginia Department of Health should continue providing these health care services. In an effort to gauge opinions over time, *Turning Point* will encourage

the Commonwealth Poll, a yearly survey of attitudes and opinions, involving among other things the provision of government services, to repeat the question - "Can you name a service provided by your local health department?" The results will indicate if *Turning Point* has been successful in raising awareness of the value of prevention activities sponsored by the Virginia Department of Health.

The purpose of community outreach was to determine areas that public health needs to focus on strengthening for the future. *Turning Point* learned that the public is interested in access to care, communicable disease control, environmental health, health education and communication, and health information. One could argue that the community has a limited understanding of the variety of programs and services offered by local health departments. Regardless of the outcome of the *Turning Point* initiative, the above mentioned areas must be assessed to strengthen public health.

Turning Point learned that the public is interested in:

- Access to care
- Communicable disease control
- Environmental health
- Health education and communication
- Health information.

GOAL AREA Two

Improve state and local policy leaders' understanding of and value for the contributions that public health agencies and their partners make to creating and sustaining health communities.

Improve Understanding About Public Health

In an era where "image is everything" - public health definitely has a problem. There is a general lack of understanding about the breadth of services provided by the Virginia Department of Health. In addition, decision-makers fail to recognize the impact of preventive services and the value that work represents to the health of the community.

Turning Point attempted to reverse that trend. Initially, efforts to raise awareness among key stakeholder groups were done through the *Turning Point* Steering Committee. At the initial meeting members did not have a uniform understanding of the program and services offered by the Virginia Department of Health. In-depth presentations on health department activities were conducted so Steering Committee members could articulate public health's mission, programs, services, and the current state of affairs. Without that grounding in history and present practice, Steering Committee members would be unable to articulate a future vision for public health. At the end of this two-year process, Steering Committee members are informed and aware of the needs to improve the health of our communities.

Our efforts did not stop at the small circle of statewide stakeholder groups. Over the course of the strategic planning grant process, *Turning Point* was presented to numerous statewide, regional and local groups both internal and external to the Virginia Department of Health. The following chart illustrates the groups that heard the *Turning Point* message and offered feedback on the activities and findings. Clearly our focus in year one was outreach to the community. That priority is reflected in the number of presentations conducted during that time frame.

In an effort to reach broad audiences about the critical need to strengthen the public health infrastructure, *Turning Point* submitted several articles for

Turning Point Presentations

Year One:

- Board of Health
- District Health Directors
- Office of Family Health Services
- Nurse Managers
- Division of Chronic Disease Prevention and Nutrition
- Environmental Health Managers
- VDH Nursing Council
- Joint Commission on Health Care
- Chamber of Commerce Executives
- Fairfax County Health Advisory Board
- Alexandria Public Health Advisory Commission
- Crater Health District Advisory Board
- Northern Virginia Access to Care Consortium

Year Two:

- Board of Health
- District Health Directors
- Office of Family Health Services
- Nurse Managers
- VDH Nursing Council
- Youth Matters
- Joint Commission on Health Care
- Virginia Association of Local Human Service Officials
- Association of State & Territorial Health Officials

publication. Reaching community decision-makers was of paramount importance. *Turning Point* targeted Connections and Town and City, monthly publications of the Virginia Association of Counties and the Virginia Municipal League. These articles reached local government officials. In Virginia, public health enjoys a unique relationship between the state and local government. Public health workers are state employees; however the budget is a collaborative funding effort made up of state general fund dollars matched by localities and augmented by federal grants. This appropriation ensures that public health programs and services are maintained in every Virginia community. Because of this relationship - no one is wholly responsible for preserving the public's health. It is both a blessing and a curse, a benefit because responsibility is shared - a detriment when one level of government reduces funding and expects another to address any shortfall.

One activity proposed in the *Turning Point* application that has not yet come to fruition is the development of a Legislator's Guide to Public Health. A local department of health serves every member of the General Assembly. There are legislators aware of prevention activities in their communities. However, *Turning Point* believes this to be the minority. General Assembly members interface with public health when their constituent has a problem: a delay in getting a birth certificate, the refusal to permit a septic system, or the closure of a nursing home. There is a tremendous amount of effort to strengthen community health that legislators may not understand. *Turning Point* saw this as an opportunity to raise awareness among this important group of policy makers. Initial research into this proposal was conducted and a Table of Contents was prepared to create a resource document with sections devoted to the programs and services implemented by the Virginia Department of Health. *Turning Point* received feedback from public health officials, legislators, staff and lobbyists on this proposal. Given today's environment of quick dissemination of information in easily understood and digestible formats, it was clear that such an effort would go largely unused. Many responded that the resource would merely take up space on a legislator's bookshelf.

Currently, the Virginia General Assembly is working to completely automate the legislative session. *Turning Point* chose to wait to implement this strategy until more legislators are on-line. In the near future, the Virginia Department of Health should develop a web-based interactive resource that will allow legislators to access information about public health programs and services and walk them through critical public health processes - the ones on which they typically receive questions from their constituents. *Turning Point* envisions a series of training modules that could be developed for legislators and then tailored or modified for other audiences and purposes.

At the conclusion of our first year, *Turning Point* published two reports. The first was a comprehensive document that chronicled the grant activities and findings over the course of 1998. Because *Turning Point* intuitively understood that not everyone would digest a 80 page document on the needs of public health, we also created a 12 page promotional piece to ensure that individuals could easily understand the purpose of *Turning Point*, our objectives, and initial findings. Our year one report and promotional piece were distributed to 500 and 2500 individuals, respectively.

It will be difficult to test the successful implementation of this *Turning Point* goal. One Steering Committee member articulated that improved understanding of public health would be measured through new voices advocating for prevention activities. The Virginia Department of Health needs to develop and foster service provision partnerships. Increased interaction with community partners will cultivate advocates outside traditional governmental public health agencies.

GOAL AREA THREE

Place public health leaders and their partners in the pivotal role of developing, collecting, analyzing and sharing data that support information-based decisions for Virginia's communities.

Increase Information-Based Decision Making

Virginia is drowning in data but starving for information.

It seems that information technology is currently a "buzzword" in public health. Around the country, public health agencies are spending millions of dollars to develop information systems that collect and analyze health data. Virginia is no exception.

Turning Point heard from health care providers in Virginia that they constantly submit health data to the state and rarely see any information returned in a usable fashion. Therefore, lack of usable health information for decision-makers at the state and local level must be true as well. Critical questions that need to be answered include "are the Virginia Department of Health and other public health agencies collecting the correct health information and what are they doing with it?" Clearly, health care providers do not see the intrinsic value in their current efforts to submit health-related data to the state. It is not known how policy makers feel about the dearth of reports based on critical community health information.

Budget directors cringe when they hear requests to support information infrastructure and probably often wonder - is this shoving money down a rat hole? Technology changes rapidly. What is innovative today barely gets the job done five years from now. Millions of taxpayer dollars have been spent automating databases and developing data warehouses. Where has it gotten Virginia? To date, not very far. But that is not a reason to stop funding our information infrastructure. In order to improve community health, decision-makers need information on identified needs and programs that work. Failure is certain only if we take no action. Technology is always changing. Forecasting future trends in information management is a risky science.

Early on, *Turning Point* saw the advantages in information dissemination through the World Wide Web. One of the first tasks undertaken in the initiative was the development of a web page found at **http://www.vdh.state.va.us/tpoint.htm**. The web site includes background information, presentations to groups around the Commonwealth, links to related web sites and a copy of the year one and final report. It is a resource guide for Virginians and others hoping to learn more about *Turning Point*'s efforts to improve health.

Virginia is fortunate to have a comprehensive public health system - a local health department serves every town, city and county in Virginia. In order to understand how best to strengthen the public health system, *Turning Point* needed to know how effective are the programs and services offered by the Virginia Department of Health. *Turning Point* contracted with a national consultant to assess the ability to carry out the core public health functions of assessment, policy development and assurance. The purpose of this activity was to determine what local health departments are doing well in implementing the fundamental

public health practices and where there is need for improvement. This activity is described in greater detail later in the report.

One of the challenges of strategic planning to improve the health of the community involves the quality of and access to health information. The collection, analysis and publication of health statistics is often a protracted, cumbersome process. The bottom line - public health professionals and their private sector partners are rarely able to review relevant statistical data in real time. Too often, government agencies at the federal, state, and local levels and individuals within communities are required to make decisions about improving health in a population without good data. Access to timely data and the effectiveness of our data systems have been said to be only as good as the worst provider of information. *Turning Point* seeks to change that adage by improving data collection, analysis and returning data to decision-makers in a more timely manner.

The Virginia Department of Health has established critical goals to create an integrated health information system based on the future roles and responsibilities of public health. The Virginia Information Systems Integrated Online Network (VISION) will integrate and automate current public health data systems. Goals include: improving customer service through effective automation; fostering public/private collaboration to improve access to primary health care services; and working to assure the highest quality of health care in Virginia. All current data collection instruments will be integrated into this system, allowing decision- makers to access needed data easily and efficiently.

The development of a secure network to support VISION currently is underway. Private physicians, hospitals, community-based organizations, government, public health professionals, and others will be able to link directly to the system and download needed statistical information. VISION will create a centralized storehouse of information derived from multiple programs and agencies. The data will be organized for analysis and provide linkages to external data sources. The ultimate goals will be to allow timely data access for expeditious decision making about critical health needs in the community.

The types of data that will be available from the VISION data warehouse include:

- Vital Records and Health Statistics
- Personal Health
- Environmental
- Regulatory
- Administrative
- Reporting
- Census Data
- Hospital Discharge Data
- Centers for Disease Control National Center for Health Statistics data

Unfortunately, the millennium has gotten in the way of progress for VISION. Efforts to remediate automated systems and ensure compliance with Year 2000 objectives have been made the priority for information systems within the Virginia Department of Health and other public and private sector partners. The Virginia Department of Health remains committed to building the VISION system as soon as possible. According to the Virginia Department of Health's Office of Information Management, while the entire schedule for implementation of VISION has been pushed back, full integration of the system should be operational by 2001. Of course, this timetable is dependent upon the general funds necessary to develop the system. The public health infrastructure cannot be strengthened without a data system that collects, analyzes and returns data to decision makers in a timely manner.

During the second year of the *Turning Point* initiative, the Steering Committee participated in a scenario planning activity to envision the impact *Turning Point* had on community health ten years in the future. The activity is described in greater detail later in the report; however, one of the principles articulated during that process indicated that *Turning Point* encourages the development of a world class health information system. VISION is a step in that direction. Clearly, the Steering Committee remains very supportive of the Virginia Department of Health's efforts to enhance data collection and dissemination capabilities.

One of the national objectives of the *Turning Point* initiative is to look at both traditional and emerging roles for public health. Technology has dramatically changed the way the business of public health is practiced at the state and community level. The art and/or science of telemedicine is no exception. This technology offers a unique way to address the medical needs of individuals in underserved areas. *Turning Point* staff researched telemedicine and explored opportunities for the Virginia Department of Health to become involved in this new way of doing business. Currently, there are three pilot sites at local health departments providing specialty medical consultations to patients in real time. Assuring access to medical care services is a role of public health. Telemedicine may provide a cost-effective way to evaluate the medical needs patients within the community - with minimal disruption to their lives.

The enhancement of systems that allow decision-makers to develop, collect, analyze and share health data is a critical step toward a robust public health system. Without it, Virginia will craft health policy in a vacuum. The ability to make informed decision and evaluate their effectiveness will become even more critical in the years to come.

GOAL AREA FOUR

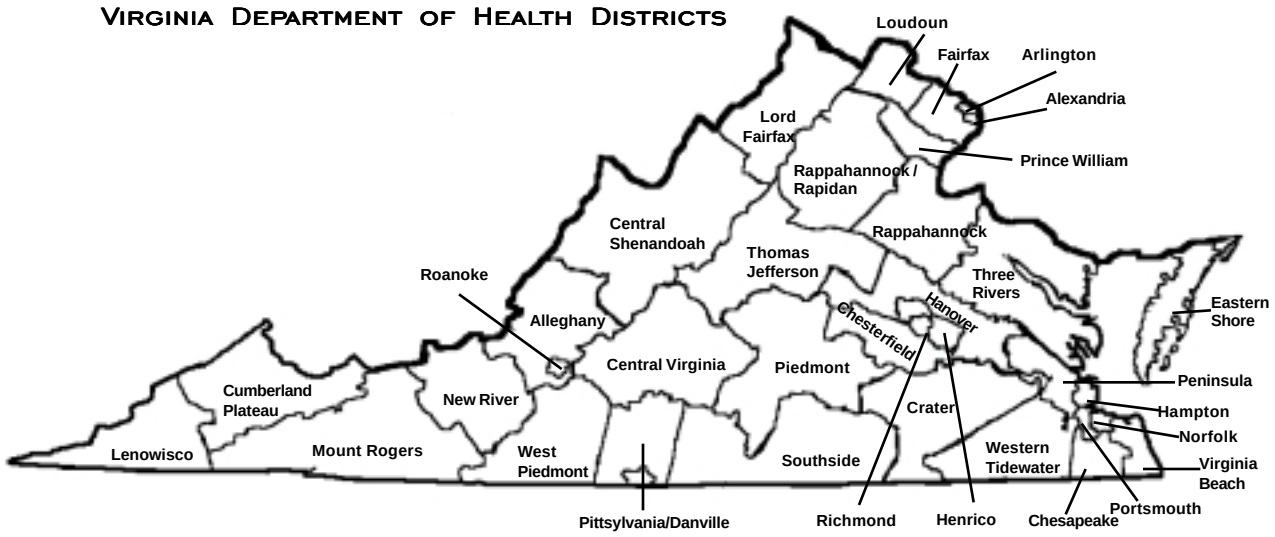
Ensure that the Commonwealth has a skilled workforce to perform core public health functions to improve the health of Virginians.

Enhance Workforce Education and Training

As *Turning Point* seeks to strengthen Virginia's public health system in the next century, we have to assess the quality and quantity of our available tools to improve community health. The Virginia Department of Health has a variety of programs and activities that work toward that goal. However, this cannot be our only resource. As *Turning Point* has evaluated the strengths and weaknesses in the Virginia public health system - one element has emerged. Virginia is fortunate to have a dedicated public health workforce.

As public health agencies around the country are rethinking what they do and how they do it - the most critical component to success is a committed, dedicated public health workforce. Throughout the *Turning Point* process, as we seek new solutions to addressing health concerns, we also need to consider how we retrain and develop our current workforce to make sure they have the competencies needed to be effective in a new environment.

The Virginia Department of Health is comprised of approximately 4300 full and part-time employees representing approximately 200 personnel classifications. VDH serves the Commonwealth through a central office and 35 health districts made up of 119 local health department sites around Virginia. These personnel figures do not include the public health workforce in the locally administered health departments Arlington and Fairfax counties and the city of Richmond.



While public health enjoys a very diverse workforce, up to this point it has been fairly compartmentalized. Program staff are often unaware of activities going on elsewhere in the department. In this era of multi-sector collaboration, public health workers need a more comprehensive understanding of the current programs and services offered by local health departments as well as training in new roles and responsibilities. Those new roles include project management, partnership development, assessment and evaluation. Public health as we know it today will be different tomorrow. Solutions for tomorrow's pressing community health needs require us to adopt new practices and approaches.

Turning Point worked to raise awareness and build support among the existing public health staff for the changing roles of public health. In addition to the web page and a series of internal presentations, employees were updated on the activities and progress of the grant initiative through broadcast e-mails from the state health commissioner. Employees were encouraged to follow-up with the *Turning Point* Coordinator with questions, comments, and concerns. Public health workers must be willing to assist in this transition if *Turning Point* is to be successful.

To improve the health status of Virginians, public health and private health care providers must also do a better job of working together. Due to the time constraints of this two-year initiative, *Turning Point* was unable to complete an inventory of continuing education opportunities around Virginia. This goal should still be pursued. Staff should take advantage of existing education and training opportunities. The inventory should include public as well as private sector training initiatives. Greater exposure between public health workers, community leaders and health care providers in educational settings will facilitate ongoing dialogue on how best to improve community health. Efforts should be made to reach out to educators, health plans, hospitals, professional associations and business owners to identify potential continuing education opportunities.

Turning Point has worked to facilitate this collaboration among the medical and nursing schools in Virginia. It is estimated by the Public Health Foundation that America spends less than one percent of the health care dollar on public health agencies and programs. In Virginia, we need to work together to promote the benefits of prevention in improving the health of individual patients and our communities. *Turning Point* met with the deans of Virginia medical and nursing schools to discuss how to best infuse prevention and community health principles into the curricula and provide internship training of future health care professionals. One way to increase understanding of the important role prevention plays in optimizing community health is to establish collaborative activities to address a public health concern. Using this approach, medical and nursing students would work in the community on a public health project. Public health professionals, physicians, health plans, local government officials, businesses, and community-based organizations would join them in their efforts. It would provide the student with exposure to a number of critical community partners. An additional benefit would come through the realization that medical management of individual patients affects community health.

Virginia was fortunate to be selected as part of a four state pilot program for the Centers for Disease Control (CDC) Foundation's Management Academy for Public Health. The CDC Foundation recognized that capable managers and administrators are critical elements in the infrastructure of local and state health departments. The project is based at the University of North Carolina at Chapel Hill. Scholars (current public health staff) receive training in the competencies needed to fulfill public health responsibilities and the essential skills - financial planning, human resource management, and communication - required to carry out such responsibilities. Management academy participants are obtaining a solid

foundation in organizational management and practical training in strategic planning, information systems, finance, human resources, and other areas. Over the course of the next three years approximately 150 public health professionals and their partners throughout Virginia will participate in this exciting initiative.

Virginia is also fortunate to participate in a collaborative public health leadership institute with four other states: North Carolina, West Virginia, South Carolina and Tennessee.

Regardless of the outcome of the *Turning Point* initiative, changes are needed in the make-up and skill set of the current public health workforce. The health care marketplace and public health systems are in transition. The advent of Medicaid managed care and changes in home health care administration has negatively impacted local health department's ability to generate revenue that support core public health services. In Virginia, staff in local health departments leave because those revenue sources supported not only clinical but other public health programs. These services continue to be critical to improving community health.

Work must be done to assess the training and professional development needs of the public health workforce. Our ability to continue protecting the public's health depends on it.

WORKGROUP REPORTS

As *Turning Point* entered its second year, five issues emerged as critical components toward strengthening public health. They were access to care, communicable disease control, communication and health education, environmental health and health information. *Turning Point* realized that obtaining expert opinions from diverse stakeholders was critical to addressing these concerns. Workgroups were established to identify the public health problem, envision success, and strategize concrete steps to achieve the success articulated by members.

Workgroup members were asked to consider the following: Public Health is about prevention - it is the primary focus. Public health operates in a political environment and its funding is tied to the state's budgeting process. As workgroups considered new strategies for the future - if they were to be implemented by the public health workforce - training might be a necessary component to ensure that current employees have the skills needed to thrive in the future. Finally, the collection, analysis and use of information reflect the future and all strategies must bear in mind that technology may be essential to success.

Members represented internal Virginia Department of Health personnel in both the central and district offices as well as over 25 statewide organizations. In addition, each *Turning Point* local partnership was invited to send representatives to ensure that planning at the state level could be influenced by local efforts and that strategies created could inform local planning as well.

Eash workgroup held meetings over the course of the summer. Members discussed the current public health system and debated many different ways to address the problems. The final work product was a series of white papers included in this report. In the final analysis, members focused on strategies they felt either were the most critical to success or held the greatest promise to improve health outcomes for a large number of Virginians.

"The process was well managed and I actually feel like the strategies that were developed have promise and should be implemented as soon as possible."

A Turning Point workgroup member

Recommendations from the five workgroups were discussed by the *Turning Point* Steering Committee. Implementation strategies were considered along with scenario planning activities, the internal assessment of the Virginia Department of Health and the analysis of public health laws to select the most "robust". Those strategies were considered for implementation funding from the Robert Wood Johnson Foundation. While Steering Committee members validated the workgroup's actions, they were responsible for prioritizing the 26 implementation strategies and identifying those addressing the greatest need or with the best chance of success. Ultimately, Steering Committee members created a composite strategy with elements from a number of different workgroup proposals to submit to the foundation for funding.

The following white papers reflect the workgroup members' concerns with the public health system, envision optimal public health performance in the critical area, and provide expert opinions on how to achieve those goals. It is clear that any suggestions for improvement of the public health care system will

require buy-in from affected organizations and constituencies. *Turning Point* will continue to build partnerships and work collaboratively to ensure a strengthened public health system.

ACCESS TO CARE

Executive Summary

The lack of access to care is a serious problem in many areas of the Commonwealth of Virginia. Preventable or treatable health problems go untreated and become more severe because people either cannot afford care or because there is no local care available. A 1996 study by the Virginia Health Care Foundation revealed that about 858,000 people, or 13% of Virginia's population are uninsured. Tens of thousands of other Virginians live in medically underserved areas, where there are few or no local health care providers.

Determine VDH's Role in Service Provision:

VDH needs to further examine its role as a prevention agency to define its role in the provision of services. A better role may be to assure services without actually providing the services. In many cases assurance may be more cost-efficient than direct service provision. If VDH does continue to provide services directly, it should provide them in a way that is consistent with common practice guidelines if possible.

Dental Care Access:

In addition to improving access to medical care, Virginia needs to take action to improve access to dental health care. Among the strategies discussed in the "access" workgroup were:

- Recommending that dental services be added to the list of mandated services.
- Encourage VDH and Medicaid to work together on children's dental care issues.
- Improve scholarship and loan programs for dental students practicing in underserved communities (dental shortage areas).
- Explore the feasibility of expanding the practice of dental hygienists.

Address the Cost of Prescription Medicines:

Increasing access to pharmaceuticals would greatly improve the health of Virginians. For some patients, controlling or treating a disease with medication is far more cost effective and beneficial to the patient than allowing the disease to progress to the point of hospitalization.

Unfortunately, the cost of prescription medications, particularly for chronic conditions, can be astronomical. Many patients lack prescription coverage, and resort to taking less than the recommended dose, taking the medication less often than prescribed, or not filling the prescription at all.

Recent legislation now allows free clinics to use Commonwealth of Virginia negotiated contracts for pharmaceutical purchases. The health department could use both Internet resources or the state purchasing contract to provide lower priced pharmaceuticals to clients.

Re-Examining Mandated Services:

Changes in programs like Medicaid, and the newly proposed Family Access to Medical Insurance Security plan (FAMIS), may mean that some populations are receiving health care services while other groups

remain unserved. The Joint Commission on Health Care could study mandated services, as could the proposed Public Health Institute.

Assessing Community Health:
Turning Point needs to acquire a tool to regularly assess community health needs in each of its 35 health districts. Once such a health needs assessment was completed, each community would develop an action plan, specifying how it would overcome its particular local health care challenges.

Background

Access to health care is one component of the assessment function of public health. It is also one of the issues being studied by all fourteen *Turning Point* states. The critical question remains: "Is access to health care a right or a privilege?"

Access to wellness-based health services was identified as a critical component of a vibrant health care system during the *Turning Point* Key Informant Discussion Groups. The issue of access to care also was studied in a September 1997 Health Care Summit hosted by the Virginia Department of Health (VDH). Participants at this summit addressed numerous access issues including children's health, Virginia's uninsured, and insurance based solutions, and concluded that these issues need to be addressed by all players in the health care arena, not only VDH.

Limited Federal Assistance:
At the federal level, one agency that works to improve access to care is the Health Resource and Services Administration's Bureau of Primary Health Care. This bureau administers Health Professional Shortage Area (HPSA) designations as a part of its overall mission of achieving 100% access and zero health disparities throughout the nation.

If an area meets the criteria, it may participate in several federal programs including the National Health Service Corps, the National Health Service Corps Scholarship Program, the National Health Service Corps Loan Repayment Program, the J-1 Visa Waiver Program, and Rural Health Clinic Certification.

All of these programs try to draw trained health professionals to underserved areas. As of May, 1999, there were 56 HPSA designations in Virginia, primarily in central and coastal Virginia.

Similar designations are made at the state level for medically underserved areas. Virginia's Medically Underserved Areas (VMUA) may participate in the Virginia Medical Scholarship and Nurse Practitioner/ Nurse Midwife Programs. As of May 1999, Virginia had 56 designated HPSAs and 43 whole counties or cities that were designated as VMUAs.

The HCFA designations for Health Professional Shortage Areas are based on three criteria for a given geographic area:

1. the geographic areas involved must be rational for the delivery of health services
2. a specified population-to-practitioner ratio representing shortage must be exceeded within the area; and
3. resources in contiguous areas must be shown to be overutilized, excessively distant, or otherwise inaccessible.

Two Answers: Free Clinics and Community Health Centers:
At the local level, free clinics and community health care centers help address access obstacles. Virginia has 32 free clinics, more than any other state. Free clinics provide general medicine, referrals, lab and diagnostic testing, prescriptions, and care coordination for patients who otherwise cannot access health care. Community health centers also provide health care services in 49 locations around the state. These centers typically exist in health professional shortage areas and they function as full comprehensive medical practices that see both the insured and uninsured.

The Department of Health:
VDH is also involved in providing health care services to citizens. Presently, there are three main areas of health services mandated by the state that local health districts must provide: environmental health, communicable disease control, and family planning.

In addition to these mandated services there is an array of other services that can be provided optionally through local government agreements between the locality and the local health department. The services provided differ from locality to locality, and may include cancer screenings, well child care, physicals, flu shots, immunizations, and TB skin tests. The cost for the service is typically based on ability to pay.

With the growth of managed care, statewide, many former health department patients have begun moving to other providers. While this move is reducing revenues for VDH, it may result in better patient outcomes, due to the more permanent medical home.

Vision

Virginia should strive to be a place where communities are healthy and citizens can easily access needed health care services. The workgroup felt that communities should be comprised of healthy people (physically and mentally) who are self sufficient and able to actively participate in society.

Ideally, all of Virginia's human services agencies will come together with complementary approaches to community health needs. By uniting in a streamlined and coordinated effort, this "team" will ensure that all individuals, regardless of their ability to pay, receive the services they need when they need them.

This type of community-based case management would have two components: to provide care and to serve as an information and referral source. By working together, human service agencies and health care providers could prevent any duplication of effort and also serve more people who are currently slipping through the cracks of the health care system.

Enhancing Flexibility:
Local health departments need to have the flexibility to design a public health system based on community needs and available resources. It is essential for communities to assess their needs and receive flexible funding based on these needs assessments. Giving local health departments more flexibility may be a way to promote independence and local accountability of individual health departments and districts.

Broad Range of Care:
People should be able to access a broad base of care including preventive, acute, chronic, specialty care, substance abuse services, mental health services. The importance of ensuring the availability of this range of services to all people regardless of ability to pay cannot be stressed enough.

Implementation Strategies:
Among the tactics that the Access to Care workgroup developed to address access in Virginia are: Community Health Needs Assessments, Dental Health Services, Re-examining Mandated Services, VDH's Role in the Assurance of Services or Provision of Services, and Access to Pharmaceuticals and Laboratory Services.

Community Health Needs Assessments

One recurring theme throughout the work of this committee and several other committees was the need for timely, accurate, localized information. A comprehensive community health needs assessment (CHNA) tool is the best vehicle to gain information about critical health needs at the community level. VHHA's annual *Indicators of Healthy Communities* is an example ofcomparative data that can be used to set priorities for community health initiatives.

Selecting the Methodology:
The first step in developing a CHNA process is to determine the optimum methodology. One alternative is to allow each community to develop their own assessment process. While this method encourages community buy-in and support, it does not allow for easy comparability among health districts.

The other option is to have each community use a standard assessment tool, such as the nationally recognized APEX (Assessment Protocol for Excellence in Public Health) standards developed by the National Association of County and City Officials. The APEX protocol was adapted and used in the 1998 health assessment of Virginia's New River Health District. While this method allows for ready comparison between communities and health districts, it may not lead to the same level of community interest and support as a "homegrown" assessment tool.

Local Implementation:
Regardless which method is chosen, the best way to initiate the CHNA is at the health district level. The assessment must examine health issues broadly. While the CHNA can be initiated by the health department, community support from multi-disciplinary coalitions that include local government, businesses, hospitals, other state and local agencies, and community organizations is essential. Community partners must be involved at all levels of the process.

There are countless indicators that measure the health status of communities, and some indicators change rapidly and need to be measured frequently, whereas other indicators change so slowly that they are measured every few years. While ambitious, an overall CHNA done every five years with interim evaluations that are community specific would keep decision-makers current on priority issues.

Once these assessments have been completed, the next step would be for each health district to develop an action plan. This plan would outline what specific steps need to be taken to meet the community's health needs.

CHNA Staffing and Funding:
Asking health districts to undertake these CHNAs with their current staffing constraints may be unrealistic. Implementing a CHNA will require a particular set of skills, some of which may not be present in VDH's current workforce. District Health Directors will need to assess the skills of their workforce and augment with training if necessary. Initial funding for a comprehensive CHNA could be provided by national, state, and local foundations. Once the initiative is up and running, VDH and its partners should pursue its ongoing implementation.

Re-examining Mandated Services

Mandated services provided by local health departments need to be reevaluated, in light of changes that have occurred in programs such as Temporary Assistance for Needy Families, the Children's Medical Security Insurpance Program, and Medicaid. Mandated services refer to environmental health, communicable disease control, and family planning. Since entitlement programs have been changing so rapidly, it is important that the health department look at the services required by the *Code of Virginia* and provided by local health departments. These services should not be the same services provided otherwise. An evaluation of mandated services would prevent duplication and could lead to a better match of community needs with services provided by local health departments.

Assigning the Re-evaluation; the Center for Community Health:
An assessment of mandated servi ces could be undertaken by the Joint Commission on Health Care. If, as recommended by several *Turning Point* workgroups, a Center for Community Health is created, the Center could assume the responsibility. The workgroup members felt strongly that such a Center would have to be autonomous, politically unencumbered, and existing outside the auspices of the health department or any of the state's medical schools. The Center for Community Health could not only do research on access to health care, but it could also serve as an advocate group for access issues.

Funding for the center could follow a couple of different models. It could adapt the public/private funding structure of the Virginia Health Care Foundation, which supplements a bi-annual appropriation from the General Assembly and Governor with outside funding from businesses, universities, and other foundations.

The center could be led by a board of directors, which might include representatives from the legislaturee Virginia's three medical schools, VDH, VHHA, the Virginia Association of Health Plans, and the Medical Society of Virginia. It would be vital to have community-based organizations represented on the board of directors regardless of the institute's funding structure.

Dental Services

The need for increased access to dental services is undeniable. Currently few of the health districts provide dental services as local options. Nineteen of 32 free clinics provide dental services including preventive care, fillings, and extractions. Community health centers that receive funding from the Bureau of Primary Health Care are required by federal regulations to either provide or assure dental care services. Some of these centers provide dental services on site, whereas others arrange for private dentists to provide care by charging patients on a sliding scale fee schedule.

A 1996 Virginia Health Care Foundation study found that 11 percent of Virginians had not seen a dentist in four years and six percent had never seen a dentist. The 1999 Joint Commission on Health Care Dental Study explained the considerable impact that dental disease has on all areas of health, including the facts that

periodontal disease is linked to increased risk of heart disease and it can worsen the effects of diabetes. Clearly, there is need for a study to determine whether dental care should be added to the list of services mandated by state government.

Variables Affecting Access to Dental Care:
There are several factors involved in increasing access to dental care. First and foremost, there must be enough dentists to serve the population. VDH needs to obtain and maintain dental HPSA designations as a way to recruit dentists into underserved areas. While loan repayment and scholarship programs that require dentists to work in HPSA designated areas may also be effective, many dental students do not chose to participate in these programs. The amount of the scholarships and loans do not significantly address the cost of dental school tuition. In order for scholarship and loan programs to be more effective in placing dentists in needy areas, the amounts offered need to be increased to represent a larger portion of the total cost of education.

Since dental care needs are critical in Virginia, VDH should determine if dental care needs to be a mandated service. Required or not, dental care needs must be assessed and addressed in each community's action plan.

Children's Dental Care:
One possible approach to addressing dental needs involves children. VDH, the Department of Education and the Department of Medical Assistance Services (DMAS) could partner to coordinate dental services for all children. Since DMAS already covers dental services for those children whose parents meet income guidelines, the joint effort could be structured to entice dentists to provide services.

Linking Scholarships to Care:
Another long term solution is to require that dentists who are placed in underserved areas as a requirement for loan or scholarship programs to see all patients seeking care. Scholarships could require that all recipients give a certain percentage of charity care. This would require strict monitoring to ensure compliance and VDH would have to work with the Department of Health Professions (DHP) and the Board of Dentistry to create more appropriate surveillance and penalties. These changes in scholarship and loan programs would undoubtedly increase the number of patients receiving dental care.

Expanding the Role of Hygienists:
Another option to increase access to dental care services is to allow dental hygienists to provide more services to patients, cutting the cost of care. Currently there are 13 duties that a dentist cannot delegate to a hygienist. If this number were reduced, more of a dentist's load could be carried by the hygienist and more patients could be seen. VDH could work with the DHP, the Virginia Association of Dentists, and the Virginia Association of Dental Hygienists to study the feasibility of expanding the range of care hygienists can provide.

VDH's Role - Assurance or Provision of Services?

Public Health has traditionally focused on prevention and population-based health care; however, its funding is not necessarily reflective of that focus. In some states, like Virginia, the health department has been seen as a safety net health care provider for the indigent and uninsured. Part of the problem is that the funding of

local health departments is heavily based on direct clinical service provision. They have both a financial incentive and community demand to continue providing clinical care.

It may actually be more cost effective for VDH to focus less on providing care and center more on assurance, ensuring that an individual can receive health care services in the community (not necessarily from the health department). By coordinating and assuring care, VDH could spend less money on the provision of services while still ensuring quality care to consumers.

Looking to CHNA Results:
The role of VDH in providing care and assuring care has been debated and studied for years. Instead of doing more statewide studies on access to care, communities should look to their CHNAs to find ways to ensure access. It is not efficient to make sweeping decisions about what services local health departments should or should not provide to the general public. Based on the needs of each community, there should be the flexibility within the Local Government Agreement that is reflective of the CHNA.

Health departments should not try to be a provider of services in an area where those needs are being served by another entity. Changing the current system to allow flexibility at the local level is essential. This would require the state health department to reassess the funding allocations. Flexibility could develop if funds were not tied to services. The question remains for federal funds that are categorical and often tied to work on a specific disease or program. *Turning Point* has little influence over that funding stream.

Cost and Mandated Services:
Governmental public heatlh agencies typically exceed the per-patient cost for service delivery when compared to private sector costs. The reason? The provision of auxiliary services that are often a condition of grant-funded service delivery. While the standards of care followed by public and private health care providers is the same, the list of required services varies. When a person comes into a local health department clinic for a family planning visit in addition to a physical exam, Title Ten federal regulations require that each patient be able to access screenings for cancer and sexually transmitted diseases, immunizations, information on birth control methods and education on how to use them. While beneficial preventitive measures, these auxiliary services can be far more extensive than a patient would receive during a routine visit to a private health care provider. The requirements and the funding mechanisms must be examined and streamlined to ensure that federal funding sources and their service delivery requriements are coordinated and maximize the use of public resources.

Resource and Referral, a Better Role:
The consensus role for VDH is that of a resource and referral agency. If the agency takes on the responsibility of assurance, the health department could transition to a case management function. Beyond providing information, this structure assures that citizens receive the necessary services to improve their health.

Shifting from the direct provision of care to case management within a health department would require a cultural change as well as the development of new skill sets. Such changes will require a lot of commitment and time. VDH should put more emphasis on the needs of each individual, so patients do not get "lost" in the system. One tool is the creation of customer- focused support systems.

Access to Pharmaceuticals

Access to pharmaceuticals and laboratory services are important both to the ongoing medical management of each patient and to the health of the community as a whole. Yet the high and growing cost of pharmaceuticals poses a long term problem. Service providers indicate that many times patients may receive care yet are unable to purchase the prescribed pharmaceuticals.

One option is to create a purchasing consortium through which pharmacists could to provide discounted medications for the uninsured. Another tactic is already in place- a law was recently passed that allows free clinics to purchase medications through Commonwealth of Virginia negotiated contracts. However, the largest state purchasing consortinum was established by Minnesota. Pharmaceuticals purchased through this 31-state contract can only be used in traditional governmental functions and not for the purpose of competing against private enterpirse. VDH has asked Minnesota for a waiver to allow Virginia's free clinics access to this purchasing consortium.

"Free" or discounted prescription medications also are available, either through pharmaceutical manufacturers' programs for patients in need or through discount websites (i.e. Amerisource). As part of a case management system, the health department could use their access to the Internet to link customers to these sites.

Conclusion

Access to health care is an issue that has thwarted decision makers for decades. Resolving it will require the input and commitment from both public and private health care entities. Through the above mentioned strategies, VDH can begin to more accurately define its role in access to health care services. Interaction and cooperation among state agencies, hospitals, community health centers, free clinics, community-based organizations, and private physicians and dentists will lead to increased access to health care for all Virginians.

COMMUNICABLE DISEASE CONTROL

Executive Summary

Communicable disease control has been a main focus of public health since the inception of public health departments. Problems in the collection of information about communicable diseases need to be overcome in order to achieve the best health outcomes for Virginia. Specific enhancements needed in the disease surveillance process include increased acceptance of disease reporting by the medical community, improvements in the completeness and timeliness of reporting, and continued diligence to confirm diagnoses. These can be accomplished through better communication between public and private sector health care providers and implementing methods that lessen the burden of reporting on individual providers. Also, VDH should take a more active role in gathering communicable disease data and implementing electronic reporting of information to the health department. Ensuring that private providers and insurers have policies in place that allow for the laboratory confirmation of diseases of public health importance will also strengthen communicable disease control.

Furthermore, increased use and dissemination of surveillance data should occur. VDH must demonstrate to health care providers how surveillance data is used to reduce the spread of communicable diseases. Providing timely information back to the health care community in a useable format is key to achieving this goal. Further enhancements of data use may be demonstrated by analyzing the disease surveillance data to assess the general health of communities across the Commonwealth. When the health community is aware of developments in communicable disease control it can better assess the impact of these developments on community health. This moves communicable disease control beyond disease surveillance into a role of facilitating public health research, a new development that would enhance disease control efforts.

Background

Health departments were first created to control the spread of communicable diseases. Although advances such as sanitation, vaccines, and antibiotics have led to decreases in incidence and deaths due to these diseases, communicable disease control remains one of the primary functions of public health.

The ability of the health department to monitor the occurrence of communicable diseases in the community and to intervene in controling the spread of these diseases is dependent on the timely and complete reporting of diseases by health care providers. Therefore, disease surveillance serves as the foundation for effective communicable disease control. According to the Virginia Regulations for Disease Reporting and Control, disease surveillance is defined as "the on-going systematic collection, analysis, and interpretation of outcome-specific data for use in the planning, implementation and evaluation of public health practice. A surveillance system includes the functional capacity for data analysis as well as the timely dissemination of these data to persons who can undertake effective prevention and control activities." Having a system in place that allows for complete, timely, quality data collection; analysis; interpretation; and dissemination is crucial to communicable disease control.

Existing communicable disease surveillance systems can be improved. Disease reporting is not always well understood or accepted by health care providers who have the responsibility, according to Virginia

regulations, to notify the health department when they diagnose conditions of public health importance. This may lead to underreporting or missing the opportunity to improve health and prevent complications. Without better reporting, the health department cannot know of the level of disease activity in the community and thus cannot act effectively to prevent the diseases from spreading. Reporting by multiple providers may expose a trend to epidemiologists that may not be apparent to a single provider.

Even when reporting occurs, delays limit the ability of local health departments to protect communities. The health department may learn that a citizen has a disease only after it is too late to take action to halt the spread of the disease to others. It is important to report diseases to the health department as quickly as possible, even as soon as the diagnosis is suspected, so that those responsible for communicable disease control in the community will be able to intervene at the earliest possible time. Educating providers about the importance of reporting is critical to strengthening communicable disease control in Virginia.

In addition to problems with completeness and timeliness of reporting, the workgroup members beleive another challenge in achieving quality disease surveillance is the concern about the cost of diagnostic testing for communicable diseases by providers who receive capitated payments for health care services. Confirmation of the diagnosis is critical to communicable disease monitoring and control. In these systems, there is an incentive to minimize the costs. One way to minimize costs is to treat some conditions based on a presumptive diagnosis, without submitting specimens to the laboratory for confirmation. This creates a challenge for communicable disease control in that the public health response varies according to each particular disease. Confirmation of the diagnosis can be critical to effective communicable disease control.

Vision

The workgroup members believe that in order to have a system in which private medical providers and the health department work as partners in communicable disease control, all reportable diseases should be reported to the health department in a timely manner, and laboratory testing should be conducted consistently to confirm diagnoses of public health importance. Results should be shared with the provider community to increase their understanding of the value of disease reporting. The health department should enhance the disease surveillance process by increasing the use of active surveillance and electronic reporting and ensuring that data are used to assess the health of communities and to drive actions to minimize the occurrence of communicable disease. Collaborative research should also be conducted by public and private providers to demonstrate the benefit of communicable disease control interventions.

Improve Provider Relations

Currently, information on suspected or confirmed communicable diseases does not always flow smoothly from health care providers to the health department and visa versa. In order to improve this trend, the health department and private providers should work together more closely and frequently to increase communication. With facilitated information exchange, communicable diseases could be tracked more effectively. Epidemiologists need the participation of private providers to help stop the spread of disease. A proactive stance to increase awareness and visibility of communicable disease control systems is one way to achieve this end.

Increased awareness and cooperation would result in more effective surveillance and reporting. Stopping the spread of disease is critical to improved health outcomes, and VDH should market the importance of surveillance to physicians, hospitals, and managed care organizations. Awareness among health sciences students can begin in Virginia's health sciences professional schools. VDH could work with the university leadership to include more active and passive surveillance coursework in the school’s curriculum. Virginia's

medical schools are beginning to address these issues. The Eastern Virginia Medical School (EVMS) requires that third year medical students study preventive medicine and epidemiology. The class is being revised to include a series of lectures and a series of laboratories. The University of Virginia (UVA) also offers an elective epidemiology class in which students look at clinical care and how it relates to health policy.

However, the workgroup believes that more epidemiology and surveillance training topics should be incorporated into the medical school's curriculum. It is important to present epidemiology information when the student can best link communicable disease control to what they are learning about clinical care. Too often epidemiology is not linked to the care of the individual patient. Physicians can be concerned about the care of the individual patient and public health at the same time.

Medical school students are not the only ones who have an opportunity to be more familiar with the latest principles of integrating disease control with patient care. All physicians play a role in applying communicable disease control concepts to their patient's care on a day-to-day basis. As a doctor considers caring for the patient, he or she should also think about controlling the spread of disease in the community. The Virginia Epidemiology Bulletin is sent to all licensed physicians in Virginia and is an excellent vehicles to inform providers on disease trends. Another approach to reach these physicians would involve a partnership between VDH, the academinc medical centers and local medical societies, to develop and provide a series of continuing medical education programs to illustrate the application of public health epidemiology to individual clinical cases. The annual Epidemiology Seminar, sponsored by VDH, could also be opened to all medical personnel to facilitate understanding of communicable disease control in Virginia.

Finally, in order to achieve improved provider relations, VDH should consider attending and participating in medical association meetings. Increased professional interactions would allow VDH to maximize the opportunities to illustrate the physician's role in communicable disease control. Another opportunity to reach physicians in the community is through hospital staff meetings. District Health Directors and other VDH physicians can take an active role in promoting the importance of communicable disease reporting to their private sector counterparts. Demonstrating to hospitals and managed care organizations the value added in consulting with the health department for possible public health implications of communicable disease cases is critical to success. Communicable Disease Control topics should be presented at VHHA and the Virginia Association of Health Plans' annual meetings. Beyond that, the Commissioner could meet with individual hospitals' and health plans' medical directors to show examples of where VDH's participation in the communicable disease control process will help the hospitals and HMOs provide better patient care, achieve better health outcomes, and ultimately save money.

Increase Active Surveillance

Several different modes of active surveillance are used around the Commonwealth. It is important to assess their acceptability and effectiveness. One mode involves having public health nurses onsite at private physicians' offices conducting chart reviews to see what diseases have been diagnosed and extracting case report data from records containing a reportable disease diagnosis. Another method requires local health department staff to perform telephone surveys to physician's offices on a weekly basis to find out how many cases of specific diseases have occurred (eg., sentinel reporting during flu season). Selective sampling is another surveillance model in which a representative sample of provider offices are involved in active surveillance. All of these various modes of surveillance need to be researched and compared in terms of how much they cost and what benefit they yield. The result could be the development of a series of best practices. Local health departments could determine which model is best for their specific situation and

disease prevelance. This idea of using public health nurses to do active surveillance for the health department has a strong link to the aforementioned strategy of improving provider relations. The presence of the public health nurse in private physician's offices gives an opportunity for doctors to gain a better understanding of how the information that they submit to the health department is used. It also creates an immediate feedback between the health department and physicians in the community.
Another approach to active surveillance is to have public health nurses and epidemiologists monitor pharmacy records. This could be very beneficial in narrowing the focus of surveillance activities. For instance, if certain factors, such as the number of antibiotic prescriptions, were indicative of changes in the number of disease diagnoses, then those factors could serve as markers that warrant follow up surveillance. It will be important to study which indicators have significant impact on reporting and how to monitor the variance in these factors. As always, VDH should be sensitive to the security and privacy issues surrounding the use of pharmacy records. Public health nurses already have full time responsibilities. To add additional duties would require either hiring more public health nurses or restructuring their existing duties. Nurses could receive training in epidemiology and biological statistics. If additional nurses are hired, this approach will require additional general funds for VDH.

Increase Electronic Reporting

For the purposes of this report, electronic reporting of communicable diseases is defined as a computer automatically transmitting specific data on reportable diseases to the health department. Electronic data transmission is more comprehensive and includes electronic reporting and the transmission of data that could be used to track antibiotic use or syndromes. The first step in increasing electronic reporting in Virginia is to perform research studies to identify computer systems in place in providers' offices and the feasibility of those systems to transmit data to VDH in a way that can be read and used.

Surveying medical practices on electronic reporting could be done while public health nurses are conducting chart reviews in private physicians' offices. Nurses could assess the practices with electronic records systems to determine if their practice represents the community as a whole. If a representative sample could be found, electronic reporting for the whole community could accurately be projected from the records of that practice. If electronic medical records were not in use, the public health nurse could assess the viability of these practices to do electronic reporting. This entire process could lead to an assessment of how electronic reporting could be used to facilitate communicable disease surveillance.

In order for data to be effectively transmitted, received, and used by VDH, it needs to be standardized. Especially in light of Y2K concerns, owners of data systems are interested in having systems that work for them internally, not with building larger external systems that can "talk" to each other. The key to standardization rests with deciding which databases are used the most and can be linked together. This will require the health plans' and health care providers' support. Data standardization issues are not unique to Virginia, but it is a process in which the Commonwealth should participate. A research initiative on electronic records could be pursued from the National Library of Medicine and the Centers for Disease Control and Prevention. Electronic reporting will also require that safeguards are in place to protect the privacy of the information.

Increase Diagnostic Testing

In Virginia, only hospital laboratories are required to forward cultures to the state laboratory for disease confirmation. The regulation should be expanded requiring all private laboratories to send specimens to the state laboratory. The state laboratory certifies private medical laboratories. In order to ensure compliance,

Virginia could require managed care organizations to contract with a laboratory that forwards all required cultures to the state laboratory. A change in the Board of Health's disease reporting regulations could require that the state laboratory receive cultures from commercial laboratories for required diseases. Specifying which cultures need to be sent to the state laboratory would lessen the reporting burden on laboratories. Requirements for out-of-state laboratories would be governed by the laws of interstate commerce.

As previously mentioned, not all surveillance is based on laboratory reporting. Physicians play an integral role in surveillance as well. There are currently 25 reportable diseases which require only a clinical diagnosis; so that laboratories do not have to report them. Even so, the case definitions often include laboratory confirmation. It is important that doctors receive laboratory confirmation on reportable disease diagnoses. Some physicians may be discouraged from doing laboratory tests by managed care organizations. To help ameliorate this issue, the state could adapt the quality assurance regulations that apply to managed care organizations to require them to automatically approve the laboratory testing of a stool specimen any time a physician diagnoses an enteric (of or relating to the intestines) disease. The workgroup beleives that this policy change would increase the number of laboratory confirmations of diagnoses. If successful at tracking enteric diseases, this policy could be extended to cover laboratory tests for other reportable diseases based on need. These quality assurance regulations should be accompanied by education for providers and health plans on the importance of doing laboratory testing to confirm the presence of a communicable disease. This could be accomplished through a continuing medical education program. The program would highlight the importance of testing from a public health perspective. It would be possible to monitor the health plan's compliance with the quality assurance regulations by checking the number of stool cultures being tested compared to the number of patients presenting with clinically compatible symptoms.

Enhance Research Capacity

The workgroup believes that due to the fact that Virginia does not have a school of public health, research activities related to communicable disease control in Virginia are lacking. Several *Turning Point* workgroups have considered the idea of establishing a Center for Community Health in Virginia. This group saw the value of a center performing public health research. Several models were examined by the committee including Public Health Institutes in North Carolina, Louisiana, and Michigan, the Virginia Health Care Foundation, and the Virginia Hospital and Research Education Foundation. The workgroup concluded that any Center for Community Health in Virginia would have to be autonomous. Any research should be science-based. There are several different structures after which Virginia's Center for Community Health could be modeled. The workgroup felt that it would be best for the center to exist outside of the auspices of VDH or any of the state's medical schools. The center should have as much political freedom as possible. The center would be governed by a board of directors representing a broad cross section of Virginia's health care community.

One important issue for the center to research is the cost benefits and long term implications of health policy decisions related to communicable disease. For example, is it cost-effective and beneficial for all school age children to receive a pertussis vaccination? Another role of the center could be in extensive monitoring of trends in communicable diseases. Funding could come from many sources. The Center for Community Health could receive an annual appropriation from the General Assembly by following the model of the Virginia Health Care Foundation. In addition, the center should seek funding outside of its state appropriation. This funding could come from universities, foundations, and private businesses.

Conclusion

Minimizing the spread of disease is vital to the health of all Virginians. This public health responsibility is as old as VDH itself. Even though communicable disease control has traditionally been a VDH role, cooperation from private health care providers, hospitals, laboratories, and health plans is essential. Enhanced disease reporting, whether through improved electronic data systems or through active or passive surveillance will mean a healthier Commonwealth. A Center for Community Health would serve to research disease control and its impact on overall public health. All of these efforts could lead to an overall reduction in communicable diseases.

COMMUNICATION & EDUCATION

Executive Summary

According to the *Code of Virginia*, health education and communication are responsibilities of the Virginia Department of Health (VDH). Currently, the level of awareness in Virginia about public health is not conducive to good decision making about individual and community health. In 1998, a *Turning Point* telephone survey found that about one third of Virginia's population could not name a service or program provided by their local public health department. The *Turning Point* Health Education and Communication Workgroup envisions a Commonwealth whose population is not only aware of public health concerns and issues but practices public health principles in everyday life.

VDH is not effectively communicating health messages to the public. There is no central point of contact to coordinate the delivery of public health messages internally or externally. To begin addressing this need, VDH should develop an internal communications network. This process could start with the creation of an office devoted to communication activities. This office would be the focal point for public awareness and could link with other state program offices as well as health districts to increase understanding about health issues. This office could form liaisons with community leaders to promote messages about public health and create a clearinghouse for information that can be accessed easily by the general public.

Community Health Needs and Communication:

Community health needs assessments should drive VDH's mission, vision, and strategic plan. These comprehensive assessments should be done statewide every five years with specific interim assessments conducted in individual communities as needed. Participation of local government officials, business, health care providers and community groups in these needs assessments is crucial. The resulting community health "report cards" could provide decision makers with comparative health data and crucial information about health needs in their communities.

Virginia also should create a culturally sensitive social marketing plan to promote health issues. Such a plan would address the health education and public awareness needs of each district and program office.

Basic Training:

Training the public health workforce is a critical component in achieving enhanced communications. The cd-rom tool CDCynergy is one option to consider. This program was developed by the Office of Communications at the Centers for Disease Control and Prevention (CDC) as a tool for use in public health communication and intervention. This training session would be available to individuals who participate in public health communications activities around the state. Web-based training modules could be developed for the entire VDH staff.

Boosting Technology:

In this era of a rapidly changing multimedia environment, VDH should increase its telecommunications and technical capabilities. The VDH website should be enhanced and reflect recent technological advancements

in search functions and web-based training modules. Video production is another media tool that should be explored. Using all of these strategies will help VDH become more proactive in effectively communicating public health messages in the future.

Background

According to section 32.1-23 the *Code of Virginia*, the Commissioner of the Virginia Department of Health "may provide for the publication and distribution of such information as may contribute to the preservation of public health and the prevention of disease." While VDH has several mechanisms to handle health communication and education, there is a general consensus that the current approach is inadequate to address the needs of Virginia's 35 health districts and program offices. There is one Public Information Officer in the Commissioner's Office who handles media inquiries and constituent mail for the central office. The Office of Family Health Services (OFHS), the Division of Waterborne Hazards Control, and the Division of HIV/STD also have staff with public relations duties. Recently, some public relations work has been contracted out of the agency. For example, OFHS hired a Norfolk firm, Cahoon and Cross, to work on several public relations and marketing campaigns. These campaigns addressed health topics like nutrition, preventing youth access to tobacco and firearms, and fatherhood.

Media relations and other types of communication in the local health departments are typically handled by the District Health Director. Most media requests are channeled through the Health Director who either answers the request or delegates the responsibility to another staff member. Generally, any local health department response to a media inquiry must be approved by the Health Director. Unfortunately, there has been little coordination of effort between central office programs and health district public awareness efforts.

The lack of standard overriding communications objectives within the health department has lead to fractured and often ineffective communications. While VDH's responses to direct media inquiries have been adequate, they have rarely been proactive. Beyond that, the agency rarely reaches the public with critical information on health. There is a pervasive lack of awareness among Virginia's citizens regarding what the health department is and what it does.

> A 1998 statewide Turning Point telephone survey found that, although 90% of respondents felt that public health services were essential to protect the community's overall health, 35% could not name a single service or program sponsored by their public health agency. Those that could name a service overwhelmingly identified "providing immunizations" as the health department's primary role.

The health education and communication workgroup looked at communication models in several of Virginia's state agencies, non-profit organizations, and health departments in other states. Each organization studied had a stronger communications infrastructure and more staff than VDH. For example:

1. The Florida Department of Health's Office of Communication has two Program Managers, two Production Specialists, and two Public Information Officers. That health department serves 67 counties and is staffed by about 1500 employees.
2. Virginia's Department of Motor Vehicles' Public Relations Office has a Director and two Public Relations Managers. A Public Relations Coordinator works on graphics and publications while two Program Support Managers work as marketing and sales representatives.

3. The American Red Cross has an internal communications department that is served by written publications, the internet, and a closed-circuit television channel that is broadcast from the central office to most local branches. A director oversees 20 employees in external communications who deal with all media outlets: television, newspapers, and radio.

Communications is integral to the work of several of the *Turning Point* workgroups. Each articulated a need for greater public awareness and education activities related to their specific area of concentration. For instance, members of the Communicable Disease Control workgroup stated a need to help health care providers better understand why communicable disease reporting was essential to enhanced public health. In Environmental Health, the workgroup cited a lack of public understanding about the safety and cleanliness of water systems. Finally, the Health Information workgroup articulated the need for people to understand the types of data VDH collects, stores, and makes available. Communication affects each office and division within VDH's central office as well as each health district.

Vision

Decision makers and constituents in the Commonwealth of Virginia should have the tools needed to make good decisions about individual and community health. Many of these decision-making tools are based in public health information and should be communicated by VDH. To achieve this vision, the first goal is to strengthen the internal and external communications of VDH. The second goal is to raise awareness statewide regarding specific public health issues. VDH needs to market the value of public health and build a greater appreciation for what public health does in each community.

Community Leaders and Advisors:

One powerful way to disseminate messages about VDH and public health in general is through community leaders. This may be done through developing leadership skills in school staff members, the faith community, and media specialists in private and non-profit organizations. VDH could partner with community leaders so they could then go forth and promote the health department's message among their audiences. VDH could also partner with other state agencies, such as the Virginia Department of Education, or with private and non-profit organizations (i.e. the United Way, the Virginia Council of the American Heart Association, and the American Cancer Society) to disseminate public health messages.

Another method to create leadership in communities is to form more community health advisory boards. Currently, these boards are optional in health districts. 14 of 35 health districts have community health advisory boards. Where they exist, the boards advise the city council and other local decision makers on public health issues.

There are several steps to achieving the vision of effective public health communication. The steps include implementing measures to strengthen communication inside and outside of the health department. Internally, infrastructure development, the creation of a communications network, workforce development, and enhanced communications are essential to stronger internal communications. Externally, developing community leadership, community health needs assessments, and public health marketing, public awareness, and social marketing plans are necessary to improve awareness about public health.

Infrastructure Development

VDH needs to develop an infrastructure that strengthens the public health education and communication function. Primary needs are more staff, coordination, and the tools to be successful in a rapidly changing media environment. This may be achieved through developing a centralized office responsible for internal and external communications, media and public relations, and public awareness. This office would develop an agency-wide marketing plan and create public health messages for distribution in a social marketing context. The "Office of Health Information" needs resources to strengthen its capacity to educate health districts on how to do their own marketing and media relations. This group also would create and maintain a communications clearinghouse that includes both a telephone information system and an interactive website that would link customers with the information needed quickly and easily.

Accommodating Diversity:

Virginia is becoming an increasingly diverse state. Getting appropriate and understandable messages to ethnic groups will be critical to improving health outcomes. Thus, the office needs staff members who possess excellent written and oral communication and editing skills. They must be competent and culturally sensitive.

Media Savvy:

Awareness of media resources will be important for this office, as well as the ability to navigate the mass media environment. The group will need to know a variety of strategies to design, assess, and evaluate mass media campaigns. Staff members in the Office of Health Information also must have strong knowledge of social marketing, group processing, and facilitation skills. Additionally, these individuals need a thorough understanding of distance learning techniques to help in training district level staff members on media relations strategies.

On-Line Information Skills:

To build an information clearinghouse, staff members in this office will need to know how to design and maintain a cutting edge web page. It is essential that VDH's current website be enhanced, at a minimum, by adding a search function. One option for website development is to hire a consultant to modify the website. A challenge to this option, however, is that it may not foster continuous maintenance of the website required to keep it on the cutting edge of technology. Web design skills should be present in the health department on an ongoing basis, not intermittently through interns or consultants. In addition to using the website as an information clearinghouse, VDH could use it for interactive training of new employees about the structure and mission of the health department.

Telecommunications and Multimedia:

Enhanced communication in the health department is dependent on improved telecommunications and multimedia capabilities. Having an in-house or outside capability to produce videos will greatly increase VDH's ability to effectively communicate public health messages to a diverse audience. VDH could produce videos for both internal and external consumption. One video could be produced to educate new health department employees about the structure of the agency. Another could be developed that explains, to the public, the importance of public health.

A speakers' bureau could exist as part of the proposed Office of Health Information. Any speaker going to a public function would be encouraged to show one of the VDH videos. These programs could be shown

to PTAs, church groups, local business associations, etc. VDH could take a proactive approach and try to get videos aired on local cable access channels.

In developing videos, VDH could purchase video production services outright or investigate services in audiovisual programs at local colleges and universities. When selecting speakers, developing media products, sharing information, or developing skills, everyone in this office would need to have a clear understanding of the infrastructure of the health department. Thus, the office would be able to effectively serve as a hub for VDH's communications, both internal and external.

Community Needs Assessments

To be successful at improving health outcomes, VDH and its public and private sector partners need to be aware of health concerns at the local level. VDH's marketing plan should be supported by a community health needs assessment (CHNA). Ideally the assessment would drive the health department's mission, vision, and strategic plan. Effective CHNAs have been done in certain localities or geographic regions across Virginia, but they lack consistent and comparable information. CHNAs would help VDH and its partners become aware of perceptions and health concerns, identify who is best suited to address problems, and design targeted interventions.

A comprehensive assessment should be done across Virginia every five years. However, in the interim, communities could assess specific health factors identified in their community health report card. This dual system addresses the reality that some trends change slowly over time while other community health status indicators change rapidly and need to be monitored more frequently. VDH could administer one assessment tool statewide and allow localities to tailor the instrument to their specific needs.

The assessment should look at both key indicators identified across the state as well as issues important to individual communities. It is essential to address factors that are of interest to the health department and to the public. With the results, VDH could take a proactive role in informing the public of critical health issues. Interim community health needs assessments could help identify trends in health topics in a specific locality. The health department also could use the midterm assessments to further raise the public's awareness of critical health concerns.

Partnerships:

The importance of partnering with other groups at the state and community levels cannot be stressed enough. VDH needs to work with other state agencies, local government, the faith community, schools, businesses, non-profit organizations, and civic and community groups and others to obtain input. These partners can assist in determining which issues to assess, aid in survey development, and help in survey administration of the community health needs assessment tool. Partnership would encourage interest, buy-in and a shared responsibility from many key players in the local community.

VDH could develop and provide the assessment tool for local health departments and then train individuals on how to use it, allowing flexibility for tailoring the instrument to local level needs. The final needs assessment tool may be better supported if it is perceived as the product of shared efforts among community leaders rather than the sole property of the health department.

Public Health Marketing, Public Awareness, and Social Marketing

An agency-wide marketing plan for VDH is essential. It needs to include a recognizable slogan and logo. The marketing plan must be multifaceted and culturally diverse, and must contain elements of health education, public awareness, and social marketing. Flexibility is critical so it can be tailored at the health district level. The development of this plan must be driven by input from the central program offices as well as the health districts. Because of the variability among districts, there cannot be a "one size fits all" approach. The marketing plan would need to function as a general outline and offer options that focus on the primary goal of strengthening public health awareness. Program managers could choose options that best suit their needs based on the populations served, staffing capabilities, resources, etc.

VDH needs to promote its marketing plan internally. The marketing plan should reflect the agency's mission and vision, one that is relevant and enduring. Whatever VDH determines its mission to be, it is vital that its own employees be aware of it, a part of its development, and invested in it. The Office of Health Information should play a role in coordinating this effort. Staff members would need to raise awareness internally about VDH's mission and how it is impacted by each employee.

Informing the Public:

Increasing public awareness can be fostered through the dissemination of "Principles for Public Discourse." This presentation, developed by District Health Directors, outlines public health services provided by local health departments. It is intended to be presented to community groups to spread public health messages and can be tailored to fit each district. It was developed as a starting point for community discussion on improving health outcomes. The office could expand these materials further into a major media and marketing campaign for public health.

Effective social marketing campaigns provide the right message on behavior change to the right audience at the right time. This concept is essential if VDH's public health marketing efforts are to have maximum impact. VDH should link with a marketing agency for additional expertise in this area. With the right combination of public health marketing, public awareness efforts, and social marketing campaigns, VDH should have a significant role in making sound health decisions, both at an individual and community level.

Training and Workforce Development

The public health workforce is VDH's most significant asset. Training and staff development needs are critical to success if VDH's central office and health districts are to strengthen communications, public awareness, and media relations. One possible training tool for current and future public health staff is a CD-ROM-based training program developed by the Office of Communications at the Centers for Disease Control and Prevention (CDC).

CDCynergy is a "multi-media tool that can be used to systematically plan health communication interventions within a public health framework." The CDCynergy software is free and CDC's Office of Communication provides a two-day training session to teach people how to use the cd-rom and its various applications. The only cost associated with CDCynergy are travel expenses related to the training session.

In order to ensure this product could be applied at the local level, VDH could first send several representatives to receive the training in Atlanta. If successful, the training could be replicated at local health departments around the state. The only limiting factor for participation would be the number of computers that can be linked in one location for the training session. To alleviate this concern, VDH could seek support from local community colleges for accessibility to computer labs. VDH could assemble teams from each district to take the CDCynergy training course. These teams would consist of individuals designated by the office and District Health Directors who are or should be part of VDH's communications network.

Web-Based Training:

Many public health professionals are experts in their field; however, they may not be aware of the programs and services offered by other offices in the agency. To increase this internal awareness, VDH could develop web-base training for the 4300 VDH employees across the Commonwealth. Web-based training could include concepts in public health nursing, epidemiology, environmental health, and health education. Virginia's Department of General Services already has purchased software from Micromedium, Inc. that can be used by other state agencies to create web-based training modules. All staff with access to the internet could participate in a series of tutorials. This could help increase internal communications and awareness about VDH's mission, vision, and strategic plan. Once tested, this program could even be modified for use by the general public. For example, this innovative training tool could be shared with the Department of Education so children in schools could learn more about healthy behaviors. These proposed training options could be a foundation, with other offerings scheduled as needed. Health directors and people within the communication network can self identify further training needs. VDH needs to provide these resources not only to its own employees, but also to the general public to learn more about public health.

Conclusion

Communications is one of the overarching and defining functions of public health agencies. It is essential that VDH be equipped with the strongest health education and communication systems possible to strengthen itself internally and become more visible around the Commonwealth. There needs to be one central authority to manage this communications function. This communications nucleus will seek to raise awareness of public health issues in the general population and within Virginia's public health agency. By taking a more proactive approach to marketing and promotion, Virginians will be better informed about public health and how it impacts them and their communities.

ENVIRONMENTAL HEALTH

Executive Summary

Environmental health is one of the health department's most important responsibilities. The public's health depends on the quality of Virginia's environment which is overseen by VDH's Office of Environmental Heath Services and Office of Water Programs in cooperation with the Department of Environmental Quality (DEQ) and the Department of Agriculture and Consumer Services. In a 1998 telephone survey, *Turning Point* discovered that ensuring safe drinking water and protection from exposure to toxic chemicals and other hazardous materials both ranked in the top five most important services typically provided by governmental public health agencies. Pollution was cited as one of the most pressing health concerns in the communities surveyed. Clearly, environmental health is of the utmost importance in the Commonwealth.

One of the most important public health issues facing Virginia today is the quality of our water supply. VDH needs to provide water sampling and testing services so citizens may be made aware of the quality of their water. VDH should conduct representative water sample testing across the Commonwealth to determine which risk factors are more prevalent in the water in certain areas. Knowing which chemicals are likely to be present in water will allow for more effective testing. A tax on bottled water could be levied to raise money for water system improvements. Private businesses could also contribute goods and services for these improvements.

Consistent water resource planning could decrease drought problems in the future. In order to have effective planning, the various groups that play a role in water resource planning should come together with the public and work under united leadership. Dual systems that separate potable water and non-potable water for various domestic uses should also be considered in new development. Upstream of major population centers, water storage could be used to form new reservoirs that would help to combat drought situations. All of these options will help provide safe water when Virginia needs it, but they must be planned for far in advance.

The public has a right to environmental data without having to fear exposure of personal or inflammatory information. Data should be provided in a timely manner. VDH could collect data in a Community Health Needs Assessment and publish a Community Health Report Card. Any information that VDH collects should be available to the public for analysis and dissemination. One way that VDH could provide information to the public is by providing on-line access to a Geological Information System (GIS) where local health department data can be accessed.

Food safety needs to be addressed to prevent foodborne disease outbreaks. The public should be aware of the possible hazards associated with imported foods. Food service workers also need to have a greater awareness of safe food handling techniques. VDH's work with the Virginia Hospitality and Tourism Association should be expanded to develop and offer more training programs to teach the latest food safety topics to restaurant managers and employees. This training could also be modified and offered to non-regulated audiences like churches and civic organizations.

Finally, the management of onsite sewage systems should be further developed and refined. VDH should play an oversight role in managing these systems while their maintenance would be the responsibility of another service authority. VDH needs to develop performance standards to replace prescriptive standards that do not effectively match different systems with different environments. Performance standards for onsite sewage systems would allow for the entrance of new, more technologically advanced and innovative sewage systems for homes and businesses.

Background

Environmental Health encompasses many areas that promote the health of the community as well as its inhabitants. Environmental health is an area that is addressed at all levels of government, from federal to local. At the national level, the Environmental Protection Agency has worked for the past twenty five years to ensure that citizens across the nation breathe cleaner air, drink cleaner water, and have less exposure to dangerous toxic compounds. VDH's Office of Environmental Health Services also strives to meet those goals along with several others.

The *Code of Virginia* mandates that VDH provide certain environmental health services at the health district level. Some of the mandated services include the inspection of migrant labor camps, homes for adults, and daycare centers, as well as the investigation of communicable disease outbreaks. Each local health district has an environmental health manager who oversees staff that fulfill the above listed responsibilities. At the state level, VDH's Office of Environmental Health Services consists of three divisions: The Division of Food and Environmental Services, the Division of Onsite Sewage and Water Services, and the Division of Wastewater Engineering. Collectively, these divisions seek to mitigate the risks that provide for the contraction and spread of diseases through unsafe and unhealthy environmental conditions. The Division of Food and Environmental Services develop policies and regulations relating to food and milk safety and rabid animal control. The Division of Onsite Sewage and Water Services examines wastewater treatment and disposal methods for onsite sewage systems and develops policy and enforcement for water well and single family home sewage treatment systems permitting and installation. The Division of Wastewater Engineering carries out VDH's authority in assuring that the design and engineering of wastewater treatment plants protect the environment, operator and public health.

Vision

The Environmental Health workgroup envisions a Commonwealth of individuals coexisting with their environment in a healthy manner. All citizens should be ensured healthy food and water supplies. Virginians will be aware of the activities of and services provided by the health department and they will utilize them. Education is the key to raised awareness of environmental health issues.

Education and training are two major parts of the health department's role to provide a safe environment for the public. Training the staff within the agency will enable the agency to provide quality service to its consumers. Also, training individuals in the food service industry will enable the health department to prevent crisis situations. In order to have the public's compliance with health related issues, VDH needs to provide the public with information that affects their health. The role of VDH should be to enable citizens to understand the risks and ramifications of their behaviors, and to promote appropriate behaviors.

Establishment of public-private partnerships will enable the health department to utilize resources to which they may not have had access in the past. This will improve economic development in the state. Forming partnerships will enable the health department to reach members of the community that they could not reach previously. There are numerous models of public-private partnerships that have been successful and should

be replicated. It is essential that the issues related to legal liability for VDH's partners in contributing to the community are addressed. This will decrease reluctance to partner in the private sector. As VDH looks at partnering, it should consider what services it can receive from the private sector, as well as what the health department could offer. VDH could provide businesses with health services (smoking cessation programs, immunizations, general health promotion programs) that employees of the private sectors may not otherwise receive.

The health department should also take a proactive stance in the future when dealing with federal regulators. If VDH takes this approach, it will have an influence in the formulation of policies and regulations. For example, VDH could work with federal agencies to develop new model standards to monitor the food supply. Food safety is just one aspect of environmental health that the health department will need to address in the new millennium. Others include water quality, water resource planning, the public's right to know, and onsite sewage.

Water Quality

The quality of an individual's drinking water has a significant impact on his or her health. Since many Virginians use wells to supply their drinking water, an assessment of private wells is essential. This process would have to start with a public awareness campaign to educate private citizens about water quality concerns in the Commonwealth. Citizens who use wells need to be informed of the steps they could take to ensure the quality of their water. The first step would be to request that VDH or a private contractor test well water for a reasonable fee.

At one time, VDH did provide this sampling service through contracts with Virginia Tech and the Division of Consolidated Laboratory Services. It was a popular service among customers. As budget constraints grew, the service could no longer be provided by many health districts. The fee for the sample covered the lab costs but not the associated personnel costs. These costs could have been covered by a small increase in the fee. Local health department field staff would like to see this service reinstated. Providing this service gives the health department the opportunity to gather valid data because VDH staff are trained in collecting water samples. The public also benefits by having trained professionals come out and assess their water supply. These professionals evaluate the source and if there are obvious problems they can suggest solutions. This is a good quality control measure that could be provided to citizens.

VDH could consider contracting with private companies to provide water sampling services to the public. Some health districts have continued to provide water testing. In some areas, local health departments contract with private labs for testing, others have health department personnel do the sample collection. Virginia does not currently require sellers to test water, but most lending institutions do. Water testing is required for new wells. The testing is the responsibility of the well owner, typically a developer. The owner has to show that the water is satisfactory at that point in time. If it were a requirement that VDH conduct water testing, it would place a great demand on personnel resources. In order to effectively and efficiently provide water sampling, VDH needs to make sure the charge for this service covers the total overheard costs: transportation, administration, and personnel.

Generally, water testing is done as a part of a legal transaction, particularly real estate transactions. VDH needs to raise awareness that water systems are only as safe as the regulations require them to be. Requirements may not meet the expectations that people have about their systems. The test result that a customer currently gets is a snapshot of no more than a few test results through a continuum of years. This may give people the false impression that their water is safe.

Many tests analyze only for bacteria. There are other concerns: viruses, lead, pesticides, and herbicides. A series of tests to look at many factors increases the cost significantly. If customers want a comprehensive assessment of their water, numerous tests would have to be done, costing thousands of dollars. Instead of testing a sample from each home for every substance, VDH could study representative water samples around the state and publish statistics for each area. This would give consumers an idea of what is likely to be in their water. Then consumers could test their own water based on the reported findings. It would be a valuable service to consumers to help them know what is and is not likely to be in their water based on information collected about the water in that area and land use. Also, if VDH publishes this information, and then consumers test their water, they will have criteria by which to judge the results. One important concern in doing any report like this is confidentiality. VDH could do reports on a general area, but not release information on specific homes. This would protect property values and encourage people to test.

Another recommendation from the environmental health workgroup is to tax bottled water and use the revenue to improve wells, small water systems, and sewage disposal systems. Just a few pennies for each bottle would make a huge difference in Virginia. It is a potential source of revenue for programs to improve water quality. No information specific to bottled water sales in Virginia could be gathered. However, the International Bottled Water Association lists the top ten states in terms of gallons of bottled water sold. Even if Virginia sold only one half as much bottled water as the tenth state, Colorado, it could gain over five million dollars a year in revenues from a one penny tax on each quart sold. VDH could designate the money to improve wells, small water systems, and sewage disposal systems by creating a revolving loan fund that a private water supply owner could tap into for infrastructure improvements. Currently there is such a program for public systems. To qualify for the existing loan funds, a water system may be privately owned but must serve at least 25 people or 15 connections. VDH needs to target those consumers whose systems are not eligible for loans. Virginia should consider creating a revolving loan fund, grants, or even spending the money on evaluating how safe drinking water systems actually are.

Another possible way to keep private wells and small water systems in good condition is to charge owners a fee every month that would be put into an escrow account. Funds from this account would be used to repair wells and water supply systems when needed. Currently, some systems are allowed to break down and owners abandon them. This idea addresses new owners that come into public systems, but it would not solve the problem of those that are already in existence. Private industry has expressed resistance to setting up these escrow accounts because they want to know who is overseeing the account and that their money is being handled properly.

VDH could help consumers develop safe drinking water systems by encouraging private businesses to contribute complementary goods and services. With the right incentives, it would be possible to implement a program where businesses that have equipment, staff, and materials could donate these to the public good. There is a similar self-help program at the Department of Housing and Community Development where customers do some of the construction themselves and businesses contribute equipment and materials, such as backhoes and water line pipe, at cost. To entice businesses to participate in a similar program, Virginia could examine a tax relief program for these types of charitable contributions. Tax incentives may not even be necessary. Some businesses will provide a charitable contribution for the public's good. VDH, in partnership with the benefitting community, could provide public recognition for the contribution or service. VDH's most essential function in this endeavor would be to work as a clearinghouse to link individuals in need with companies that can help.

Another way to improve water quality in the Commonwealth is to publish local stream contamination reports. It is essential that the public have current information on streams. A requirement already exists that stream contamination testing be done. Warning signs are posted, as needed. Often, local governments cannot correct identified problems because streams cross local jurisdiction boundaries. The state has a significant role to play. DEQ and the Department of Game and Inland Fisheries conduct testing. The United States Geological Survey has a number of sampling stations around the state where they test water quality and stream flows. The information is available but it should be made more accessible and timely. Any information on water quality should be presented with a proper public health perspective.

Finally, VDH should specify human health issues related to water quality. The public needs to know why safe drinking water is important and the potential consequences of contamination. To ensure that the public has this knowledge, VDH should find more effective ways to disseminate information. One possible option is to take advantage of VDH's existing links with county extension services and local public schools.

Water Resource Planning

The key to effective water resource planning is strong leadership. There are a number of players in the area of water resource management and it is essential to bring them together. The public, providers, regulators, policy-makers, and other interested parties should collaborate and coordinate efforts to ensure effective long-range planning. VDH should provide a public health perspective on water resource issues. The Environmental Health workgroup believes that the State Water Commission is the most effective forum for these issues and its membership should be expanded to include representation from the Virginia Economic Development Partnership, VDH, and DEQ. The public must also be involved in water resource planning. Through a public awareness campaign, citizens could be educated on how, where, and how much water they can conserve.

One option for further exploration is a dual water system approach. Dual systems provide two types of water for residential use, graywater for irrigation and toilet use, and potable water for all other uses. First, VDH would need to look at current laws and regulations to see if they allow for two different qualities of water- industrial and domestic. It would also be beneficial to examine the success of dual systems in other areas. They have been used in other, more arid states. There have already been factual and statistical studies done on graywater. Virginia should hold public forums that discuss dual systems options to outline choices and get feedback from the public. Dual systems are a more viable approach in new homes than in existing houses. It is easier for developers to install dual systems in new construction rather than refit existing structures. Virginia has already passed legislation that called for the development of guidelines for graywater reuse. VDH and DEQ should continue to promote the use of graywater. Public forums could carry out this legislative intent.

VDH and other water resource agencies such as DEQ and the Department of Conservation and Recreation need to encourage localities to assess future water needs and plan accordingly. There are a variety of strategies to reduce the demand for potable water. The committee felt that the best way to plan for water resources would be to have a state-wide authority, like the State Water Commission, preserving parcels of land from development for use as future water resource areas. The state needs to have a role in reservoir development, water impoundment areas and off-stream water storage because these issues can cross local jurisdictional boundaries. Even though these systems may not be built for many years, planning is needed now so the land will not be developed. Effective water resource planning now could prevent serious water shortages in the future.

Public's Right to Know

The key issues around the public's right to know are confidentiality and timeliness. Information must be published without being inflammatory. The workgroup believes strongly that when information is collected that it should be disseminated in a timely manner. A coordinated effort between the collection, analysis, and publication of information would improve the information that the public receives. Proper health guidance must also accompany public health information. One way to publish health information is through a Community Report of Environmental Conditions. A majority of the workgroups have recommended that the health department complete community health needs assessments (CHNA) at the district level. One component of these broad health assessments should examine environmental health issues.

Another possible source of information for the public is a VDH Geological Information System (GIS). GIS is not currently available in all health districts. If VDH were to acquire and implement a statewide GIS system, each district could create a database of environmental health information. With an internet-based system, the public would be able to access information about and images of a particular piece of property. VDH already has the some of the technology needed to provide the internet-based service to the public, T1 lines and servers. However, VDH would need to purchase additional hardware to ensure successful implementaion. Once a GIS system was operational, the system could be expanded to link with other agencies.

Food Safety

The quality of the food supply is critical to the health of each and every citizen in the Commonwealth. As the popularity of imported foods grows, consumers need to be aware of safety issues surrounding international food items. It is erroneous to think that foods for sale in the grocery store are guaranteed to be safe. Changes in interstate and international commerce have made it essentially impossible to guarantee the origins or safety of all foods available for sale. Consumers should be educated about the regulatory processes that affect our food supplies. For instance, VDH's shellfish program requires tags to accompany a product and to stay on it until it gets to the consumer. The tags have a certification number from the health department which can be used to determine the history of the product's handling. Consumers should be more aware of requirements currently in place to protect their health.

In addition to educating consumers, VDH should expand its role in educating food handlers. VDH, the Virginia Hospitality and Tourism Association (VHTA), and the Cooperative Extension Service could partner to develop and implement a statewide certification training program for restaurant managers and employees. As co-sponsors, VDH , VHTA, and the Cooperative Extension Service could utilize the community college system to offer training sessions to food handlers and their managers. The certification program would provide on-going training to restaurant employees about the most recent food safety handling techniques. Issues about the origins of food products and the associated risks could be taught as well as procedures for following up with suppliers to inquire about the safety of food products. The class could also provide a vehicle for VDH to promote the inoculation of all food handlers against viral diseases such as hepatitis. All regulated food service entities could be required to participate in this training. Other non-regulated groups could also receive food safety training. For example, church groups or other civic organizations that often sell food for fund raising could voluntarily attend seminars on healthy food handling methods.

Onsite Sewage

The Environmental Health workgroup believes that the process to assess the function of onsite sewage systems should be changed in Virginia. VDH should have an oversight role in the maintenance of on-site

sewage systems, coordinating permits and the evaluation of the systems. However, inspection could be done by an authorized maintenance entity or service authority.

VDH uses prescriptive standards to permit the construction of onsite sewage systems. The workgroup felt that performance standards would be more effective. Prescriptive standards provide a cookie cutter approach that may not work at different sites or with various types of soil. Currently, a homeowner must install a system that meets a prescriptive set of definitions. If the system fails to meet the requirements, a homeowner is obligated to design and install an alternative system. Most homeowners are not willing or knowledgeable enough to do that. Performance standards look at each system separately. Such standards would require, for example, a cap on the amount of nitrates and fecal matter that can be released in the ground or surface water. Introducing new technology would allow another entity, a sewer district or service authority to manage, monitor, and maintain these systems over their lifetime. VDH would maintain the performance standards. Moving to a system based on performance standards would allow for more innovative onsite sewage disposal systems for private homes and industries.

Conclusion

The Virginia Department of Health obviously plays an important role in assuring the public's health based on the quality of the environment in the Commonwealth. Greater knowledge about the quality and water resource planning will result in healthier and more abundant water sources in the future. VDH's continued collection and more effective dissemination of environmental health data should serve the agency in raising public awareness about environmental health issues like food safety and water quality. This awareness will give both policy makers and individual consumers the tools they need to make the decisions that are healthiest both for themselves and for the communities in which they live.

HEALTH INFORMATION

Executive Summary

Health information is one of the key functions of public health. The Virginia Department of Health collects data and produces health information in each of its departments and offices. Currently the health department is striving to create coordination among its own health information systems as well as between public and private health information systems. By focusing both public and private health on prevention, health information systems will start to collect more population based data.

Public health needs to consider several factors when examining future information needs. The importance of quality health information lies in its impact on decisions made both at a policy and an individual level. Health information should not be driven by political will, but, rather, by the information that is truly needed to impact the health status of the Commonwealth. Successful public health information systems deliver useful, easily accessible, understandable information to the general public, as well as to public and private health care providers.

To better suit the health information needs of its customers in the future, VDH needs to take several steps. First and foremost, the current information infrastructure needs to be given the funding and staff necessary for sustainability. By creating a virtual data center, VDH would be positioned as a leader in health information systems, and, eventually, would become a catalyst to linking public health information with data from private providers, HMOs, and hospitals. By including a virtual catalog of health surveys done in Virginia, the online data center could increase awareness about the health information collected and available in Virginia.

Outpatient data is an additional health information component that needs to be strengthened. Expanding outpatient data collection to include more populations and other sources would greatly increase the completeness of this data set and, therefore, increase the data's usefulness. Community health needs assessments (CHNA) would also help the health department gain and make public critical health information. VDH could use CHNAs to discover what types of health information the public would like to have and the best formats for that information.

Background

Public health information began in Virginia in 1631 when the Colony of Virginia passed an act for the collection of vital statistics. The Bureau of Vital Statistics was created in 1912. Vital statistics remain among the most used data collected by the health department.

All of the various offices and departments within the health department collect, store, and analyze data. Until recently, all of these departments used different systems to manage their data, thus there were numerous disparate information systems within VDH. In July 1994, VDH made an attempt to merge these data systems into a more consolidated network of systems by creating its Patient Care Management System (PCMS).

The Move to VISION:

PCMS was then replaced by VDH's Virginia Information Systems On-line Integrated Network. This network, VISION was built to create more efficient data sharing and decision making. The first phase of this effort was completed in April of 1999, when the health department merged into one system with eight subcomponents. This system is currently being remediated to build a foundation for a web-based health information system. The first step in the web-based system will be a large scale database that will hold information on immunization records from all over the state that will be shared at the health district level. This immunization record system should be up and running by 2001. Many modules, including Environmental Health and Communicable Disease Control will be added to VISION in its second phase. Eventually, all of the modules of VISION will be linked to other databases including information on discharge data and census data. Thus, end users will have the ability to compare data among several databases.

The Role of the Private Sector:

The private sector also plays a large role in health information. With the growth of managed care, the health system in America has become increasingly concerned with rising costs. Americans now spend over a trillion dollars a year on health care, a figure which is completely out of proportion with that spent by other countries. We, as a nation, should be getting more from this investment. Data can maximize the impact of our health care spending. Cost/benefit and cost effectiveness analyses cannot be done without good data, yet they are necessary for VDH and other health agencies to better target our limited resources to maximize positive health outcomes.

As private sector health care players see costs rising, managed care systems also concentrated on prevention, which, more typically, had been the focus of public health. As such, the roles of private providers and public health departments are changing and converging.

There are strong reasons to re-train the public health workforce to focus on population-based prevention and health promotion, including:

- Increasing data on the impact of behavior change as it relates to improved quality of life
- Recognition that access to medical care prevents only 10% of premature deaths

Population-based Care:

Public health is no longer equated with diseases of poverty- its focus has shifted to population-based care to address controllable causes of morbidity and mortality. Many of VDH's past efforts had focused on caring for individuals as they related to the larger community. Prevention has become the overarching goal for both sides of the health care system. Information strategies have advanced from collecting individual patient information (e.g. hospital, pharmacy, and laboratory records) to gathering information that describes populations. Population-based information includes surveillance systems and disease registries. Health information is key to healthier communities and VDH needs to be in the forefront of its collection, analysis, and publication.

Vision

The health information workgroup envisions a system for health information that is useful to public and private health professionals, and also provides opportunities for general public usage in areas of high interest. With the increasing usage of the Internet, more data and information are going to be used by the public. A health data warehouse that can be accessible to public and private health professionals should address the concern related to the increasing public use of the Internet and data. Information should be

easily accessible in a fashion similar to using a website such as www.dr.koop.com. This website allows users to easily browse through topics such as health news and resources, to participate in a health topics chat room, or to find out about prescription drugs by searching an on-line database. Information should be useable and meaningful to everyone regardless of education levels.

The University of Virginia's Weldon-Cooper Center for Public Service website (http://www.virginia.edu/coopercenter/) is an excellent, user-friendly model. With one click on the Weldon-Cooper site, individuals can access statewide information on topics ranging from agriculture to transportation, and can call up search engines for federal data.

Quality Information:

Data provided over the website should be accurate, relevant, and available to the public in real time. Providers of data will need to keep a consumer-based focus to ensure that the information is both accessible and easily useable.

With the rapid growth of the Internet, the number of savvy consumers of health information will grow over time. The use of data should have a measurable impact on the health status of communities, used by decision-makers to make informed decisions. Quality health information will result in better policy decisions and better assessment of community health.

Integrated data systems need to be developed so the health of the population of Virginia can be monitored on an ongoing basis. In addition, health information needs to be provided to individual citizens to be used in making healthy lifestyle choices.

To best assess the current state of health information and to best describe where it needs to go in the future, this workgroup developed five main areas of concentration: a Statement of Importance and Need, a Guiding Principles for Planning, Challenges for the Future, Critical Success Factors, and Implementation Strategies.

Statement of Importance and Need

The importance of and need for quality health information cannot be understated. Traditionally, health information is an area within the health department that has been underfunded and understaffed. The accomplishments that have occurred are considerable given the fact that there has been very little money dedicated to it. VDH spent about 1.5% of its 1999 budget on health information. The system is typically patched together clearly not a viable approach for the future.

The current system of information gathering, assessment, and dissemination is broken. Today, there are countless disparate systems that need to be integrated. Although VDH has been working on integration since 1997, complete integration has not yet been achieved.

One barrier to integration is that reporting requirements in the *Code of Virginia* are completed by one person and then information is put into a separate system and it is never shared. For instance, the Virginia Department of Motor Vehicles and the Virginia Department of Education both collect data that reflects the well-being of Virginia's communities. However, this information is not typically merged with information collected by VDH. If these various pieces were viewed together, we would have a more complete picture of the state's health status.

Most "outsiders" perceive that public health is simply the provision of health care services without considering data gathering, evaluation, and dissemination of information. Yet information is essential to influencing behaviors and changing health outcomes. Currently not enough useable information is available to measurably impact outcomes. There needs to be a renewed focus on shifting from clinical care to information collection, analysis, and distribution.
Decision-makers must understand the public health shift from the "provider of last resort" to population-based care. Effective prevention strategies guide people to modify their behavior. While, ultimately, it is the individual's responsibility to improve their health behaviors, public health should inform them about how and why they should make the changes.

Often, decision-makers dislike the thought of spending additional dollars on data collection and statistics. They need to understand that data collection is a part of the education process. It is too simple to say that health professionals need more data. There are gaps in what data is collected and therefore there are gaps in information systems. Data is a large piece of measurement and targeting activities. Health professionals want to monitor many kinds of data in order to make sound decisions and provide good advice.

One type of data that this committee feels is useful arises from the youth behavioral risk factor survey. This data could be used in conjunction with other data sources in planning mental health and social services for the future.

Surveys can be used to get data that cannot be found from other sources that flow from systematic data collection. Surveys are beneficial in extracting data for the population as a whole. Some of the existing data sources that Virginia uses are selective and apply only to those people in a certain system.

Special periodic surveys could be used to assess the state's health status. These surveys would reach a greater population not simply those who are hospitalized or receiving outpatient care. Because these periodic survey assessments require the use of multiple tools, it is fundamental that those data sources be shared to get a complete picture.

In surveys, sample size affects the level at which the data can be interpreted. For data to be valid at the local level, the sample size must increase, and, along with it, the cost of the survey. This workgroup encourages expanded sample size at the state level. Surveys could be initiated by the health department at the state level and the central office could partner with localities. This would also help to establish consistency in questions asked from locality to locality to ensure comparability at the state level.

Other Sources of Health Information:
Surveys are not the only source of health information. Other sources include U.S. Census data, reportable disease records, vital statistics information, disease registries, and sentinel surveillance. Information from all of these sources must be combined if we are to have a complete picture of public health status. No one piece can paint a complete picture. It is essential to note the relative importance of each data source. For instance, without Census data, health officials would lack a platform element that serves as a common denominator for the other data sources.

There is a strong need for increased awareness. Citizens need to know the range of data VDH collects and the information VDH provides. Currently there is a wealth of health information available that is unused. The data is accessible and useful, yet users do not know it exists.

Not only does information need to be user friendly and accessible, it also needs to be promoted. Even within the state system there are a lot of data sources that are not being shared and are, therefore, underutilized, such as law enforcement data and other state level agency data. Even people within the health department can be unaware of the data sources their colleagues have and use.

VDH needs to both broaden recognition of the data now available and educate internal and external audiences on how to interpret and use the data. It is essential to complete this step before creating new data sources. By increasing local level utilization of information, the state will be able to better target limited resources to change health outcomes.

Guiding Principles for Planning

There are several principles that should be kept in mind while planning for the future. First, health data should meet the greatest needs of the greatest number of people at the lowest cost, and be completed and available as quickly as possible. At times, politics, more than true public need, drives the collection of data.

While the information needs of researchers, policy setters, decision-makers, and the general public must be met, there is no such thing as free data. Thus, cost-benefit considerations should be made when developing data systems. For example, from a public health perspective, VDH should choose a data system with a beneficial impact for everyone in the state, versus an expensive system that would only apply to 1% of the population.

It is essential to balance information and data needs with security and privacy concerns. Although health professionals or the health department may see the value of having complete sets of health information, individual consumers resist having personal information made public for the sake of data gathering and information processing. Many consumers fear the advancement of health information technology and see it as a threat to their privacy. These are valid concerns that must be addressed. Health information systems must respect public processes and public concerns relating to personally identifiable medical information.

Timeliness of data is another key principle in planning for health information systems. To be useful, data has to be timely. If providers feel that they are getting useful information, they will be more inclined to report, and, therefore, data sets will be more complete.

Providers also need feedback to know that their efforts to report data resulted in something useful. One of the biggest complaints from the private sector is that they send the health department much information but they never hear about it. Providers wonder how the data is used, if at all. Many health professionals dream of having all communicable disease reporting automated, with practitioners able to receive immediate feedback on reportable diseases. This automation could make a real impact on the quality of care.

The overriding goal is high quality of care to keep people in Virginia healthy. The focus must remain on positive health outcomes, otherwise no level of technology and data is useful.

One purpose of the health department is to process data into meaningful information. It is said that we are drowning in data but starving for information. To be useful, data must be complete, accurate, and organized in a way that directs users to the policies that need to be made. Simply creating tables of data does not aid in developing the best policy options.

Truthfulness is also important. Data should accurately reflect what occurs in the real world. In addition, given the costs associated with collecting and entering data, our health information systems should work to reduce the burden on those who have to report data. To the greatest extent possible health care professionals should take advantage of pre-existing automated systems.

VDH already uses nationally defined data standards for software and financial data (HL7 and X12 respectively). As more standards are developed for future interstate data exchange, VDH needs to take a proactive stance in participating at the national level. American National Standards Institute and the National Association for Data Organizations are working on data standardization. It would be beneficial for VDH to tap into the decision-making process, collaborate with the coordinated national effort, and voice its opinions. If it does not participate in the planning process, VDH will simply be the recipient of guidelines passed down from national institutes.

In the future, federal grants may require that a certain set of information be delivered in a specific format as a condition of funding. The federal government might also create a standardized program like *Epinfo,* a public health software package developed by the Centers for Disease Control and Prevention which allows the user to create and analyze a database of medical information. Certain organizations may prevent entities that can not "talk" with their electronic medical records systems from doing business with them. In the face of possibilities like these, VDH needs to be in the forefront of standardization and policy development .

Challenges for the Future

While developing guiding principles for planning, the health information workgroup identified several challenges for the future. These challenges are current hurdles that must be passed in order to progress successfully into the future. One of VDH's core problems in generating good information is that information collection, analysis, and dissemination have been underfunded and understaffed. Each of these factors impacts the extent to which VDH can develop and use information. The health department's clinical focus is a barrier to achieving information infrastructure. To shift from a clinical care focus to a concentration on population-based care, a culture change will have to occur within the agency. Such a change will not take place overnight, and some localities will accept this change faster than others.

Among the several reasons why the health department will not be able to continue patching together funding streams and revenue sources for health information in the future are:

- lack of infrastructure;
- lack of training;
- VDH's clinical focus;
- the categorical nature of public health
- federal restraints that inhibit flexibility at the local level.

The organizational structure of VDH also presents challenges. VDH consists of one central office, 35 health districts, and 120 local health department offices, and a handful of locally administered health departments which are independent of the state (in Arlington, Fairfax, Richmond). Since a majority of local health

departments fall under the supervision of the central state office, local health departments are free from having to create policy in addition to providing services. Although this removes a burden from health directors, it also constrains them in creating policy to the extent that it involves advocacy. Thus, the focus of most local health departments continues to remain toward service provision.

Another challenge that must be met in the future is the lack of coordination between the health department and hospitals. Both entities need community and political support to be able to exist and grow. Hospitals and health departments are beginning to see that they cannot simply provide satisfaction to people who come through their doors sick and needy. The current competition for patients creates duplication and detracts from the efficacy of both entities.

Critical Success Factors

Critical success factors paint a picture of what success should look like. Flexibility in data content and data relations will be crucial to creating successful information systems. It will be important to build complex functions that are flexible to changing circumstances, rather than trying to specify every eventuality in the data. Systems also must be designed step-by-step to avoid the traps that arise when a huge system is designed all at once.

Flexibility must also be present in underlying technology. Design systems need to be able to be easily modified. They should allow for entry points for data exchange with other systems. Systems with stand-alone modules that can communicate with each other in nonproprietary computer language usually offer more flexibility than tightly integrated systems.

Implementation Strategies

There are several steps that can be taken to strengthen health information systems across the Commonwealth. First, unless the information infrastructure problems that already exist within the health department are fixed, progress is impossible. More resources need to be dedicated solely to public health information systems.

VDH should serve as the catalyst working to achieve data integration among the data systems of other state agencies, health plans, hospitals, businesses, and other organizations to build a single consolidated system. VDH needs to discourage the use of individual proprietary data systems, instead gathering data from many sources and putting it in a virtual data center. VDH has already started creating a data warehouse filled with the agency's data. With enough resources, this data center could be expanded to link with other systems to provide a more complete data source. All of this information could eventually be web-based and accessible to the public via the Internet.

Another on-line resource that the health department could develop is a virtual catalog of surveys done in Virginia. This catalog would be a useful tool to increase access to health information among decision makers and the general public. A catalog of surveys could increase awareness about what information is collected and available in Virginia. For instance, if one locality knew that a survey had been done somewhere else, they could adapt that survey tool, instead of developing their own, leading to lower costs and more comparable data. A virtual catalog would also help highlight any holes in these survey assessments. In other words, it would show what areas remained unexamined. However, a catalog like this would require ongoing maintenance, not just a one time effort.

In addition to cataloging surveys, VDH will need to continue to participate in the youth behavioral risk factor survey. There is national data and a history of data for the Commonwealth that provides good mental health data for the future. This survey needs to be continued on a statewide basis. Currently 17 localities conduct the survey on their own this data could be very helpful if it only was disseminated more widely. Used in conjunction with other data sources, this data could be most effective in planning mental health and social services for the future. (The sample size needs to allow extrapolation at the local level.)

Community Health Needs Assessments:
Community Health Needs Assessments (CHNA) would also help the health department serve in an information coordination role. Almost all *Turning Point* workgroups, including health information, have recommended CHNAs.

To most effectively structure public health information resources in the future, VDH needs to know what information is used, what information is needed, and in what format it is the most useful. VDH should create a two-way communication mechanism for getting feedback from customers on what they are and are not using. When health professionals know the information the public is seeking, they are better able to meet those community health needs.

Outpatient Data:
Outpatient data collection is another area that needs to be strengthened to create a complete health information system. The current outpatient database contains only information collected on care paid for by the state (state employees and Medicaid patients), which equals a mere three-to-five percent of the entire patient population. Outpatient data needs to be expanded to include other patient populations and information from a wide variety of sites, including diagnostic imaging centers and ambulatory care centers.

Clearly, the value of the information collected needs to be balanced with the burden of collecting the data. It is not realistic to collect all health care information on all patients. VDH should strive to coordinate a comprehensive set of health care data gathered electronically with the ability to link different care components so that an individual user can see the total picture.

Conclusion

Better health information systems will translate into healthier Virginians. If VDH can determine what health information the public needs to make better health decisions individually, those needs can be filled by public health information systems. Additionally, if VDH can provide decision makers with timely, accurate, and complete information they will be better able to make decisions about public health at the state and local level.

SCENARIO PLANNING

Turning Point envisioned future success as part of a scenario planning exercise facilitated by the Institute for Alternative Futures (IAF). The following is a synopsis of the findings from the exercise.

Individuals view the future through different eyes. These views are based on different temperaments, and the goal of the partnerships as well as the organization is to understand and integrate these differences effectively. Four different types of futurists need to learn to work together in order to shape a future that all can prefer. One is the Visionary, another the Analyst, a third the Planner, and a fourth the Manager.

Most members of the *Turning Point* Steering Committee identify themselves as either visionaries or analysts. The Steering Committee strength thus is generating clarity about the future from the visionary-analyst combination. This strength will need to be translated by planners and managers who can help accomplish what the Steering Committee sees. It will be beneficial for the visionaries to affiliate with planners, who need to see that the best of the past can be brought into the future by *Turning Point*. The analysts can best reinforce the pragmatic approaches that managers will take to solve immediate problems standing in the way of project goals. The visionaries may need to be reassured that while the more pragmatic steps are taken, the values of the project are honored. As progress toward the vision becomes part of the shared experience in *Turning Point*, the contribution of all four types of futurists will become clearer.

Each Steering Committee Member was asked to write a memo to the incoming Governor of 2010, imagining that the *Turning Point* project was so successful that the Governor requested the memo for the Inaugural speech. Each memo was then shared with other participants, who were encouraged to listen as allies, to affirm the "deeper music" within each statement. The vision exercise raised several themes expressed in the following chart.

One vision for 2010 stated that Virginia became the healthiest place to live in the nation. Investment in people was a common theme. The idea is that health leads to prosperity for the state; which in turn contributes to helping people improve their health. The return on investments in individual health emerges in the form of the collective society's ability to prosper. In other words, Virginia can create a health-wealth dynamic. Healthy people are more productive. Healthy communities are also more attractive to businesses that want to locate where a high quality of life exists. As people become more economically productive, resources grow and multiply and community health

Specific values that were brought to the table included:

- Collaboration through public-private partnerships as well as unique non-traditional partnerships, for example, education and health care providers
- Delivery of service without "turf issues"
- Healthy behaviors as cultural norm
- Stronger linkages within communities
- Better systems and coordination for handling "Dark Side worries"

improves. The example in public health is the reduction of lead poisoning. Children who are free from lead poisoning can learn more effectively and become productive citizens better able to work in a thriving community.

A specific goal arising from the vision discussion was to develop a world-class information system in the state of Virginia that will become a model for other states. The prospect brings together knowledge from the interdisciplinary sciences, the social sciences, and the faith community. The thrust is to increase learning, particularly through intergenerational activities that foster community building. For example, senior citizens participating in volunteer activities, such as mentoring youths, would allow for interactive participation in each other's lives, as the older occupy the younger with productive activity during hours when parents are absent. Virginia can create the information system that will match resources and needs to improve health.

Major Forces

After considering the trends and forecasts presented from IAF's environmental scans, Steering Committee members decided that three forces were most likely to have a majority impact on Virginia's health as it relates to *Turning Point* in 2010:

· Advances in technology/information system technology
· Aging populations/demographics
· Political change

Scenarios for Public Health in Virginia

Three facilitated scenario teams were given titles and brief descriptions of scenarios developed by IAF, described below. Each team created forecasts in their assigned scenario describing how the major forces listed above would have an impact on health in Virginia. These scenarios were then used to identify strategies, as described below.

Scenario 1- Hard Times

Major problems arise on the road to 2010

- Epidemics
- Economic Failure
- Breakdown of economic and health care systems
- Life expectancy falls
- Healthy years decreases
- Disparities increase

The first step to address hard times is to make a collective decision that circumstances must change and that *Turning Point* takes part in enacting such change. In order to initiate this collective will, *Turning Point* brings all involved parties to the table.

Given the hard times situation, the state looks for additional resources for health from both the public and private sectors. *Turning Point* communicates the critical role of health in generating prosperous times, and

recommends that Virginia refocus federal, state and local dollars to address these health issues. Such a crisis could largely benefit public health and sound the wakeup call for prioritizing funding to address the urgent health needs of the population, maybe even leading to a tobacco tax of $5 per cigarette pack.

Environmental health issues include unclean air and compromised food delivery systems. One audacious goal is to enforce laws and create tougher standards that ensure overall environmental health, leading to clean air and water and safe food delivery systems.

Technology is likely to advance regardless of external circumstances. But in the setting of Hard Times, *Turning Point* chooses to focus on the immediate needs of the population rather than spending scarce resources on technology. Given the necessity of triage, the program would focus on people learning to create leverage for health more than on technology.

An information systems breakdown forecast to begin with the Y2K onset raises new issues for communicable disease. In particular, an increased capacity within the public health system is necessary to assist patients who access the public health department for primary care services. One way to do this is through a mandate requiring providers at all levels to administer services. In order to maintain state licensure for doctors, *Turning Point* may consider going to the legislature and making this mandate a requirement to maintain a professional license. This would be one way of "spreading the pain" throughout the health care delivery system to minimize the impact of rapidly depleted resources.

In 2010, *Turning Point* finds that the aging population exerts tremendous political influence, as Baby Boomers are now approaching 65. As the economy had experienced a recession soon after 2000, a majority of citizens came to support the notion that a minimum level of income should be available to all,

Scenario 2- New Ways to Contribute

Economic change leads to healthy solutions

- Strengthened communities
- Commitment to health for all
- Evolution to more caring society
- Guaranteed incomes, lifelong learning and knowledge about health outcomes
- Disparities significantly reduced

leading to the adoption of a negative income tax. Alongside this, the expectation has arisen amongst communities that individuals will contribute to the larger good. With community input growing, *Turning Point* adds value by supporting measurement of health gains.

In order to develop a world class information system, Virginia needs to develop reporting guidelines and communicate the cost-benefit effectiveness to appropriate stakeholders. In addition, the state researches the potential to develop an identification card that contains health information and that also ensures privacy. *Turning Point* plays the educator role by communicating to the appropriate stakeholders the urgent need to enforce policy changes in these arenas.

As high school completion rates increase, students are better trained with marketable skills. In addition, volunteerism is on the rise, and *Turning Point* finds itself in a position of strong influence. Ultimately, the program can sponsor training courses for a volunteer cadre specializing in the health care system, ensuring better prevention and education.

Scenario 3- Sustaining Society: Creating Learning, Justice and Health

A series of "paradigm shifts"

- In investment and consumption patterns
- In income security
- In guaranteed access to health care
- Health disparities eliminated by 2010

In this scenario, *Turning Point* participates in numerous measures. The most ambitious one is to bring about a Governor's commission that shapes change by influencing political will. By promoting the cause to make Virginia the healthiest place to live in the country, the political culture is strengthened. The Assembly becomes as proud of Virginia's health status as it has been in the state's financial rating. The state's reputation for fiscal performance and health status makes Virginia the most desirable state for people and businesses to locate.

This change is embraced at all levels state, county and community. One innovative way to move in this direction is to implement a program where communities engage in healthy competition on health status. This program can ensure both healthy competition and cooperation. For example, the winning communities each year can take on leadership responsibilities and share their methods to enable other communities to improve their health environment as well. In order to initiate this program, *Turning Point* first creates measurement tools by which communities can compete for awards.

Another area where *Turning Point* positively influences health in the state is by encouraging a broader role for the department in promoting healthy lifestyle measures. While local communities invest more funds in local programs like drug prevention, the state can place a larger emphasis on public health to make it a major priority in policy and action. *Turning Point* can also promote the reallocation of resources for public health. And the project can train a cadre of citizens and public health stakeholders to close the gap between knowledge and application of health information.

Turning Point is a leader in the creation of partnerships. As the information system grows and the learning environment advances, people are more educated and able to access technology and health knowledge. Coupled with a robust economy, the potential for willing partners sharing information is tremendous.

Priority Strategies

The Steering Committee reviewed the strategies, seeking to distinguish two types. Robust strategies are those assessed to be likely to work in any of the given scenarios. Contingent strategies are those that are likely to be effective in some scenarios, but not others.

The top strategies that emerged from the Steering Committee's discussion include the following:

1. To lead a Commission to assess and improve health in Virginia, establish a program for community awards for health status create competition to be the best small town, neighborhood, county, region
2. To help localities identify problems,then join to create common solutions with other communities To use heightened education/ consciousness-raising through media, public service announcements, websites for community groups and individuals
3. To identify incentives for prevention education, such as tax breaks for companies that require wellness programs for their employees
4. To create health information partnerships for state agencies, universities, providers and information system companies
5. To foster links amongst Virginia's leading Internet and communication companies to create the public health offerings that best improve the state's health status.

As the working groups prepare to discuss implementation of *Turning Point* strategies, they will need to move key ideas closer to implementation. The Steering Committee discussed, in particular, the idea of a healthy competition for community and regional awards. This idea can be implemented quickly, since it does not require various conditions to evolve first. Several categories can be used to award efforts, including categories for "best community" and "most improved." With a savvy commission, politicians can benefit from these competitions, which will encourage participation in public health issues. While competition can be detrimental to collaboration and sharing of resources if it becomes extreme, the community need not be undermined. For the "best community" category, regional competition should diffuse any tendency to restrict sharing information on how to improve community health. The planners for this strategy, nevertheless must keep clear on the values that keep competition from blocking cooperation. One suggested approach was to make the local competitions for "most improved" health status, with the winner given both a prize and a mandate to share lessons with other communities.

The fundamental approach is for *Turning Point* to create positive feedback loops within Virginia that reinforce progressive improvements in health. The plan for "winners" to share ideas enforces the idea that with leadership comes responsibility and accountability for the success of others. These lessons are important at every level family, neighborhood, region, and state. This notion of leadership provides important design criteria that *Turning Point* can use for any of its plans.

The view of health is broadening from individual to community to state. A portfolio of strategies should emerge from the competition, with differences appropriate to the diversity within the state. *Turning Point* will function as a catalyst to help communities reach the goal of making healthy behaviors become a cultural norm. These behaviors will include exercise, immunizations and regular checkups. By promoting these health behaviors, *Turning Point* can help the health department create an upward spiral, moving beyond public health messages to real changes in behavior.
Turning Point can implement change. Agreement by major stakeholders is a first step, and *Turning Point* can contribute by bringing people to the table and conveying the need for change. In bringing different stakeholders together, this event also affords an opportunity for better integration between public and

private healthcare. In conveying these different needs, solid analysis is important. For example, a study was recently conducted in the state, where incorrect data was found to indicate that a population of 4,000 youths was being counted as 14,000 due to duplication of numbers by different agencies. If accurate date is unavailable to demonstrate a problem's prevalence, it is that much more difficult to communicate success, since baseline numbers are not available for before and after comparisons. No one in a political position can be expected to implement strategies without the assurance that that success can be demonstrated. So there is a need for good numbers and measurement processes to support strategies for health.

We must also keep in mind a long-term goal as we take our incremental steps. We have to look into the future with realistic short-term steps that satisfy the Governor and legislature by giving evidence of positive change through outcomes measures. At the same time, *Turning Point* should give itself enough time to do something well. Nothing is worse than a false start in Virginia. Careful planning is necessary. After all, three pilots that showed success in Medicaid managed care revolutionized the business, showing that well-planned incremental steps can largely benefit a program.

From the very beginning, the commitment of public and private stakeholders is essential in the healthcare arena. It is difficult to bring in stakeholders beyond the implementation phase. A buy-in is much more feasible if the stakeholder is present in the planning phase. Waiting for the perfect opportunity will only slow a process down, and it is thus critical to establish stakeholders now.

As *Turning Point* tackles the issues at hand, we should keep in mind that Robert Wood Johnson Foundation's intent is for us to be dedicated, to struggle, to do the work that they believe is important. Particularly when conditions seem arduous, we must persist and move forward remembering their purpose for us.

Turning Point needs the support of political leadership for this initiative. We should be prepared to move within the circles of the executive and legislative branches of government in order for the program to enact change and gain respect. A goal to keep in mind is for the individual patient to be unable to differentiate between private and public care. This is audacious, and it is also possible with the dedication and innovation of *Turning Point* and other parties. Change does not occur overnight. Future success demands our patience and enthusiasm now.

INTERNAL ASSESSMENT

In late 1998, the Virginia *Turning Point* Initiative solicited proposals for a statewide assessment of public health performance and capacity within the Commonwealth of Virginia and its health districts. An award for the design, implementation, and analysis of this assessment was made in early 1999. The study was carried out in the period from April through September 1999, and is summarized in this report. The report begins with a discussion of the current state of the art for measuring performance and capacity in public health systems. It then describes the methods and findings from the assessment, as well as implications and conclusions derived from those findings. Copies of the entire report can be obtained from the *Turning Point* Coordinator.

Executive Summary

This report describes a study of statewide public health performance and capacity in Virginia that was carried out under the auspices of the Virginia *Turning Point* Initiative. This assessment was designed, implemented, and completed in 1999. Public health performance was examined using performance measures that focus on core public health functions and essential public health services. Performance was viewed from different perspectives (state and local) and using different types of questions (yes/no, scaled responses, specific qualities). The performance study gathered information from district medical directors and VDH central office executives and directors. Capacity was assessed based on what state and local public health officials perceived as the elements most important for current levels of performance of the ten essential public health services and those most important for achieving an optimal level of performance for each essential public health service. The capacity study also involved district medical directors and central office executives and directors, but extended the data gathering to include key district staff (nurse managers, environmental managers, business managers) and additional central office staff.

Taken together, data from these studies suggest that core function related performance within Virginia is roughly comparable to the national average in 1995, higher than statewide performance in Kansas in 1998 and lower than that in Illinois in 1999. Results from previous national and state studies also suggest that Virginia health district performance on these measures is lower than that of comparable health districts serving similarly sized populations. Improvement on these core function-related measures may require greater implementation of formal community health improvement processes.

Several factors appear to be associated with higher levels of performance and, therefore, represent possible approaches for improving performance in health districts in which they are currently lacking. These generally relate to implementation of coordinated community health improvement planning processes that include profiles of community needs and resources, prioritization of identified needs, and implementation of community initiatives consistent with priorities. Current performance in districts was related to local leadership activities, an adequate number of trained staff, and the specialized skills of staff. Statewide current performance was a function of adequate numbers of staff with specialized skills, adequate funding, and leadership at the state level. District directors and central office directors perceived improved

performance to be related to greater state-level leadership and increased financial resources. District managers felt that local leadership was important in improving performance.
Recommendations include: widespread dissemination of the results of this assessment, longitudinal and expanded assessments over time, statewide implementation of community health improvement processes and Assessment and Planning Excellence Through Community Partners for Health (APEX-CPH) in all districts, and review of state laws and regulations to determine whether they adequately address core function and essential public health services (EPHS) responsibilities at the statewide and district levels.

Introduction

Measuring key aspects of public health system performance has long been elusive and challenging, partly because public health has come to mean different things to different audiences. Most previous attempts at examining performance within public health systems have either measured products of the public health system, such as the kinds and levels of programs and services, or they have measured the system's basic structural elements, such as the kinds and levels of its workforce or financial resources. (Turnock and Handler, 1997)

Figure 1

Key Dimensions of the Public Health System

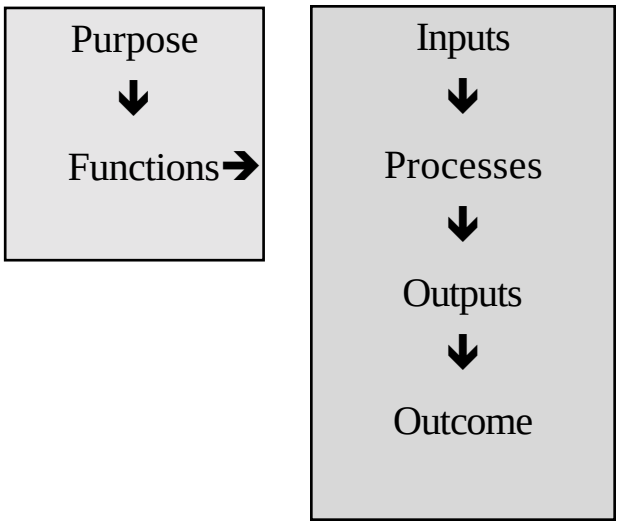


Figure 1 illustrates basic relationships among key dimensions of the public health system in terms of inputs, processes, outputs, and results. In this framework, the operational measures of the public health system's functions are processes and outputs. These dimensions characterize public health practice and it is the performance of these processes and outputs that constitutes performance of public health's core functions. In this conceptual framework, inputs represent the structural elements of the system or, in other words, the capacity or capability to perform public health core functions. Both core function performance and capacity are the focus of this assessment.

Performance Measurement

Ideally, assessments of public health performance should measure the three core functions of public health described by the Institute of Medicine (IOM) in its landmark report, *The Future of Public Health* (IOM, 1988). Assessment, policy development, and assurance have been defined and described in various ways since they were characterized in the IOM report; however, they have come to mean the general processes by which public health problems are identified and addressed through organized collective efforts. The assessment function determines what should be done. Policy development determines what will be done. And assurance determines how best to accomplish these ends. While there has been little challenge to either the appropriateness or the validity of these broad functions, there is little consensus as to what constitutes effective performance of these core functions or the elements necessary to perform them effectively.

Two frameworks have been or will soon be used to formally assess core function-related public health performance. The Centers for Disease Control and Prevention (CDC) is field-testing a comprehensive panel of performance measures linked with the essential public health services framework developed by the Public Health Service in 1994. (Baker et al, 1994; Harrell and Baker, 1997) These performance measures will be used for community capacity building as part of the substantial revisions planned for A Protocol for Excellence in Public Health (APEX-PH) (National Association of County Health Officials, 1991), as well as in a new National Public Health Performance Standards Surveillance Program. CDC also believes that these performance measures may be useful in a voluntary national accreditation program for state and local pubic health organizations. As of September 1999, however, there have not been any published reports on national or state public health performance that have been based on the essential public health services framework.

Many of the assessments of public health performance completed during the 1990s used practice performance measures related to a framework of ten public health practices identified by an expert panel convened by CDC's Public Health Practice Program Office (PHPPO) in 1990. These practices and related performance measures were originally devised to track progress toward Healthy People 2000 Objective 8.14, which calls for 90 percent of the U.S. population to be served by a local health department that is effectively carrying out public health's core functions. In collaboration with CDC-PHPPO staff, researchers based at the University of Illinois at Chicago (UIC) and at the University of North Carolina (UNC) developed and tested a variety of measures of core function performance.

Since these concepts are key to this performance and capacity assessment, the EPHS are identified below:

1. **Monitor health status to identify community health problems**
2. **Diagnose and investigate health problems and health hazards in the community**
3. **Inform, educate, and empower people about health issues**
4. **Mobilize community partnerships to identify and solve health problems**
5. **Develop policies and plans that support individual and community health efforts**
6. **Enforce laws and regulations that protect health and ensure safety**
7. **Link people to needed personal health services and assure the provision of health care when otherwise unavailable**
8. **Assure a competent public health and personal health care workforce**
9. **Evaluate effectiveness, accessibility, and quality of personal and population-based health services**
10. **Research for new insights and innovative solutions to health problems.**

Other researchers have also used these performance measures in published reports, and more than a dozen states have examined public health performance within their state-local public health system using these measures. University of Illinois-Chicago (UIC) and University of North Carolina-Chapel Hill (UNC) researchers collaborated in developing a panel of 20 measures of core function-related local public health performance based on a variety of field tests conducted between 1991 and 1995. This panel of 20 core function-related performance measures represents the most widely used tool for assessing core function performance. These 20 measures have also been incorporated into the National Public Health Public Health Performance Standards Program being developed by CDC.

Published reports of assessments based on these and related measures have generally relied on mailed or telephone questionnaires completed by local health department directors, who self-report performance of these measures in the jurisdictions served by their agencies. At times, performance has also been determined by examination of evidence at on-site assessments rather than by self-reporting.

Much of what is known about core function-related performance in the U.S. has been developed within specific state capacity building initiatives (e.g., Washington State, 1996; Illinois, 1990 and 1994; Missouri, 1997; Michigan, 1997; Ohio, 1996; New York, 1995), and is neither readily available nor generalizable to other states or the nation as a whole. There have been only two national studies involving stratified samples of jurisdictions serviced by local health departments completed in the 1990s. These used somewhat different panels of performance measures, but found similar patterns of core function-related performance.

The most recent study (1998) examined the extent to which the U.S. population in 1995 was being effectively served by public health's three core functions (assessment, policy development, and assurance). The study asked a random sample of 298 local health departments (LHDs), stratified by population size and type of jurisdiction, to indicate performance on 20 core function-related measures of local public health practice. The overall weighted mean performance score for all 20 measures was 56 percent. Using a definition of effectiveness that requires performance of 4 or more of the 6 assessment measures, 4 or more of 6 policy development measures, and 6 or more of 8 assurance measures, only 22 percent of the LHD jurisdictions in the weighted sample were rated as effectively carrying out public health's core functions. Based on the proportion of the population served by LHDs in these strata, it was estimated that only 29 percent of the U.S. population were effectively served in 1995 using this definition of core function-related effectiveness. Jurisdictions with city and/or county health departments serving populations over 50,000 persons were more likely to be effectively served than were smaller jurisdictions.

The assessments to date of core function performance paint a picture of sub-optimal functioning of the public health system nationally and in most states. While the precise status is difficult to discern, it is clear that the U.S. and most states will fall short of the Year 2000 target of having 90 percent of the population residing in jurisdictions in which public health's core functions are being effectively addressed. These assessments have, however, served to increase awareness of sub-optimal performance and have prompted a number of state-local public health systems to plan and implement capacity building strategies and initiatives.

Capacity Assessment

The status of efforts to assess public health capacity (defined here as the capacity to carry out public health's core functions) is even more problematic. Key structural elements of the public health infrastructure include

a variety of resources: human, information, organizational, financial, and physical. While some of these resources are readily identifiable and measurable, such as the size, composition, and distribution of the public health workforce, others are not.

The periodic profiles of local health agencies conducted by the National Association of County and City Health Officials are the best known and most frequently cited source of information on these aspects of local public health practice. But even this information is difficult to interpret without knowledge of how these capacity elements were blended to accomplish important public health functions. Several state public health improvement plans, most notably that of Washington State, have developed very detailed and explicit capacity standards for their state and local public health agencies. There is an increasing realization that these building blocks are critical elements of the public health system and that their quantity and quality influence the effectiveness of core function-related performance. The Public Health Service (PHS) commissioned an extensive examination of infrastructure data needs in 1995 by Lewin Associates. Lewin's conclusion was that these data exist but in many different places for many different purposes. While data on infrastructure resources could be brought together for the purposes of state based capacity building plans, the Lewin study concluded that it would be very difficult to bring them together at the national level.

Nonetheless, with interest and leadership coming from CDC, the Health Resources and Services Administration, the American Public Health Association, private foundations, the IOM, and a handful of states, there is an increasing arsenal of weapons to deploy in order to improve public health practice and state-local public health systems. Still, for there to be change in the quantity or quality of the core function-related processes that constitute public health practice, there must be targeted improvements made at the base level of the public health system affecting the workforce, information systems, participating interests and their relationships to each other, and the financial resources that support these building blocks. Importantly, 18 objectives have been proposed for inclusion in Healthy People 2010 that relate directly to the public health infrastructure in the areas of a skilled work force, integrated electronic information systems, effective public health organizations, resources and prevention research.

While the experiences of other states may be instructive, few of the lessons are clear and none are readily transportable. One essential ingredient, however, is clear. There must be consensus and considerable interest in improving public health practice through a systematic approach to developing and supporting community health improvement processes. Where this exists, a reasonable first step is to benchmark the current level of core function performance and capacity by fielding surveys similar to those described previously. These benchmarks facilitate tracking progress over time and provide information that can be compared with other parts of the country. These are preliminary but important steps that can be taken even as state-local systems learn from the each other's experience and await the enhanced tools for community capacity assessment that will be available through the revisions to APEX-PH and new standards for state and local public health performance.

Previous Public Health Studies In Virginia

In the past, the Virginia Department of Health (VDH) and legislative oversight bodies have undertaken several studies of the performance and capacity of the state health department and its local health districts.

In 1985 the State of Virginia completed a review of VDH's community health services. These services included the local health districts and the regional and central office staff that supported those districts. In general, this study examined the organizational structure and management practices of the three VDH levels

concerned with district operations. Comparisons of funding/population were presented for the five VDH regions but not for individual districts. The study's focus was on processes, not on outcomes. Among the recommendations were that smaller health districts should be merged and a future study of the budgeting process should be undertaken.

The 1985 study recognized that the "cooperative state/local budget" process did not direct funds to the areas of greatest need. This problem had been recognized as early as 1974 and several subsequent studies had all been critical of the budget process. The Department of Information Technology indicated it would plan specific steps to implement a process for more equitable funding. However, the DIT also noted the paucity of data on "needs assessment" and "program outcomes" and recommended more attention to these processes within VDH.

The "cooperative state/local budget" concept was created in 1954 with a formula that determined the percentage share of the budget that each locality would pay for public health services. The percentage was based on the estimated true value of locally taxable real property. The local contribution varied from 20-45 percent of the funds allocated to that locality's health department. The formula was refined in 1964. Because local real estate values continued to increase, the percentages for local contributions rose steadily and then were frozen in 1979. A 1988 study recommended changing the formula to use revenue capacity, rather than taxable property, to calculate the local match for the cooperative budget, with the maximum remaining at 45 percent. The new formula reduced the match for about 2/3 of the localities. In 1989 the General Assembly appropriated one-third of the funds needed to offset this reduction. The remaining needed funds were never appropriated. At the same time VDH "held harmless" those localities whose match rates would have increased as a result of the formula change.

The historic inequities in funding arose because jurisdictions entered the state health department system at different times with different base budgets. Most rural and suburban areas were always components of the state system. Larger cities and counties, however, operated their own health departments. When these were brought into the state system in the 1960s and 1970s, they brought with them much larger budgets, often tied to programs not available in other districts. Also, those districts that were successful in obtaining federal funds for specific categorical programs often lobbied for, and received, state funds to continue the programs.

In 1990 the Virginia General Assembly passed a joint resolution requesting a study of the state/local cooperative budget formula. In preparation for the study, VDH created a Budget Allocation Task Force to analyze various methodologies for allocating state funds to the local health districts. The task force reported that per capita funding ranged from $57 in Northampton County (a low income area on the Eastern Shore) to $8 in Poquoson (a high income retirement community). The task force recommended a needs-based formula for the 10 program areas presented in the Six Year Plan, such as maternal and child health, oral health, infectious disease, and management support. The "need" would be based on a weighted combination of general population, targeted populations, health status indicators, and workload indicators. The formula would apply to new funds only. No district's budget was to be reduced in order to increase the allocation to a district that was found to be below "equity." The task force also recommended consolidation of all sources of funding and increased district flexibility in using funds.

In the early 1990s VDH initiated the Program for Excellence (PFE), an effort to measure health districts' progress toward meeting selected national and state health objectives. The objectives were set forth in the Department's Six Year Plan, which began in 1986. Health districts were provided with a program-oriented

self-evaluation instrument to use in identifying current performance and future needs. The evaluation instrument focused on specific categorical programs, such as child health services, immunization, food service protection, and rabies control, and management practices, such as fiscal control, human resources, and public relations. The PFE had a component called "core services" but these were specific programs required by each district's agreement with its local government(s), not the core functions as defined by the Institute of Medicine report.

A peer review component was an important aspect of evaluations conducted under the Program for Excellence. The PFE evaluation system did not result in a score or a pass/fail judgment. Instead, a report, prepared by the peer reviewer, listed a district's strengths and weaknesses, with recommendations for improvement. The district was also able to comment on the support it received from the state health department's central offices.

The Program for Excellence was applied in many but not all of the local health districts before the process was abandoned in 1995. The PFE focused on assisting each local health district to do a self-evaluation; there was never any attempt to combine data across districts to obtain a statewide picture of district performance.

During this same time period VDH conducted a study of the capacity of local health district clinics. Each district identified which clinical services were provided, an estimate of client capacity, which services were requested by the community but not provided, and what factors were contributing to an increasing or decreasing demand for services. A brief report summarized the situation for the entire state, with general comments on facilities and resources. The initial study led to a proposal for developing a standard or model package for each clinical service. This proposal was never implemented.

The 1996 General Assembly required VDH to develop a needs-based method for allocating the cooperative budget. A VDH task force recommended a formula that would consider for each district the following factors: total population, population below the poverty level, distribution of children and non-English speaking residents, environmental health workload, and communicable disease morbidity. Implementation of the formula without additional funds would have required 15 local health districts to give up funds to be reallocated to 20 under-funded districts. However, the task force recommended a "no loss" provision so that no district would have its existing level of funds reduced. Additionally, this task force recommended that the state increase its percentage of public health costs in 85 localities where the state was paying a lower percentage of the cost-sharing plan with local governments than was recommended in 1988 by the Joint Legislative Audit and Review Commission. Together these task force recommendations would have required $6.7 million in new state funds for public health. The 1996 task force report was never implemented.

Following the pattern used in many states, the Virginia Department of Health issued a report describing how Virginia fared with respect to the national health objectives from Healthy People 2000. In Healthy Virginia Communities (1997) data for the entire state and for local health districts were compared with 30 national objectives considered most important for Virginia. For each objective measure, the values for the local health districts were ranked and divided into quartiles. Current measures for the nation and for

For public health objectives ranging from teen pregnancies to tobacco use to unintentional injuries, each local health district could see how its performance compared with other districts, national and state averages, and desired levels.

Virginia were presented, along with the Virginia 2000 objective. In general, there was a wide range in the values from the various health districts. Depending on the objective being measured, low performing districts might be rural or urban.

Methods

The general approach for this assessment of performance and capacity is driven by the experiences cited in the introductory sections. Public health performance is examined using performance measures that focus on core public health functions and essential public health services. Performance is viewed from different perspectives (state and local) and using different types of questions (yes/no, scaled responses, specific qualities). Capacity is assessed based on what state and local public health officials perceive as the elements most important for current levels of performance of the ten essential public health services and those most important for achieving an optimal level of performance for each essential public health service.

The assessment of public health performance and capacity in Virginia consists of two separate, but related, surveys of VDH district and central office professionals. The first survey focuses on performance of public health core functions and essential public health services and involves district medical directors and central office executives and directors as respondents. The second survey examines public health capacity related to current and optimal performance levels. This survey also involves district medical directors and central office executives and directors, but extends the data gathering to include key district staff (nurse managers, environmental managers, business managers) and additional central office staff. Both surveys were undertaken during April, May, and June 1999 with data collection continuing into July.

Performance Study

For the performance study, survey instruments were mailed to the directors of each of the 34 health districts and to 14 VDH central office executives and directors. If responses were not received within 30 days, non-responders were contacted by phone, e-mail and regular mail to encourage participation. During the months in which this survey activity took place, several acting directors were in place in health districts. In each instance, a decision was made as to whether to survey a former director (especially when one had only recently left the position) or the acting director.

The performance survey included:

- 22 Yes/No questions related to the performance of public health core functions and essential public health services (EPHS)
- 10 questions related to the extent to which current needs associated with each essential public health service were being met (few/no needs met, some needs met, half needs met, most needs met, all needs met)
- 77 questions asking whether specific qualities of each essential public health service were present (4-18 qualities per EPHS)
- A series of questions on respondent characteristics (age, gender, training, graduate degree, public health experience, VDH experience).

District directors were asked to respond on performance of these measures within their health districts. Central office executives and directors were asked to respond on performance of these measures statewide. Appendix A provides a copy of the surveys used, as well as aggregate responses for each question. Responses were tallied using the database capabilities of Microsoft Access and analyzed using Microsoft Excel and Access.

The main measures of public health performance included scores on a panel of 20 core function-related measures that had been used in several recent national and state studies and an expanded panel of 22 measures (which included two additional measures in order to address all ten essential public health services). Performance scores on these two panels are reported both as crude scores (the number of measures performed with a maximum score of 20 on the 20-measure panel and 22 on the 22-measure panel if all measures were performed) and as a percentage of the maximum possible score meeting the standard (maximum score is 100%).

A third overall measure of performance was generated by assigning values to responses on "extent of needs met" questions for each of the ten essential public health services. These were scored from 0 to 4 points as follows:

0 points for "few/no needs met
1 point for "some needs met
2 points for "half needs met
3 points for "most needs met, and
4 points for "all needs met.

The maximum score for this "EPHS Needs Met" measure across all ten essential public health services was 40 points; scores were also reported as a percent of that maximum.

Comparisons were made between district and central office responses, and by size of population served by the various districts. Response patterns from Virginia health districts were compared with data from recent national and statewide assessments using similar performance measures. Performance scores were also analyzed by characteristics of the district respondents (age, gender, graduate training, experience). Response patterns for each of the 77 qualities were examined in order to determine which qualities were related to performance of the 22 performance measures and 10 EPHS "needs met" measures.

Capacity Study

For the capacity study, a second survey instrument was designed. It consisted of a list of 20 capacity factors that could contribute to performance of the essential public health services. For each of the 10 EPHS, the respondent was asked to rank the 5 most important factors in attaining the current level of performance and the 5 factors that needed to be improved to achieve an optimal level of performance. The survey also requested a piece of information present on the first survey: an estimate of how well performance on each EPHS was meeting the need. These questions provided a context for respondents to identify enabling

factors as well as a basis for testing reliability since the same respondents (district directors and central office executives/directors) answered the same questions at two different points in time.

This survey instrument was mailed to four groups within the Virginia Department of Health:

Group A	111 managers (nursing, environmental health, and business) in the 34 local health districts (several districts had 2 persons serving in a manager role)
Group B	34 directors or former directors of each of the local health districts
Group C	14 central office executives and directors
Group D	25 division directors in the central office

Persons working in the local health districts were asked to respond on performance and related factors in their district. Persons in the central office were asked to evaluate statewide performance and related factors.

Individuals in groups B and C were the same persons who had received the first survey on performance. They were asked to complete this second survey instrument and retain it for an interview. Interviews were held in person or by telephone and were conducted by one of three persons (the project co-investigator or two graduate research assistants). During the interviews each respondent was asked to report the rankings he/she had selected for each EPHS and then provide any comments or explanation for the choices. The interviewer recorded comments. Each interview lasted 15-30 minutes.

Individuals in groups A and D were asked to complete the survey and return it by mail. They had not received this first survey; the capacity survey was their only involvement with the study. Persons in these two groups worked under the persons in groups B and C, respectively. Repeated telephone calls and e-mail messages encouraged persons in groups B, C, and D to complete the survey (and participate in the interviews, where appropriate). The group A managers received no follow up efforts to encourage participation.

Responses were analyzed using Microsoft Access and Microsoft Excel database capabilities. The factor ranked most important was given a score of 5, the next most important a score of 4, and so forth, with a score of 0 given to any factor not ranked among the top 5. Two respondents checked five factors but did not rank them; their answers were all given a score of 3. The mean score was calculated for each factor on each EPHS, both for current performance and for optimal performance.

For determining the extent of current performance, i.e. the level of needs met, for each EPHS, the percentage of responses for each of the possibilities (meet all needs, meet most needs, meet half needs, meet some needs, and meet few/no needs) was calculated.

Findings From Respondents

For the performance study, there were 35 responses received from current (including acting) or former district directors; these included 31 current and 4 former district directors. For one health district both the former and current acting director responded. It was decided to use the former director's response after reviewing both submissions. Two health districts that function as one (a county and its urban center) reported as a single district. The overall response rate was 100% with all 34 Virginia health districts

participating in this part of the study. Responses were received from all 14 of the VDH central office executives and directors for a response rate of 100%.

For the capacity study, responses were received from the targeted groups as follows:

Group A 55 of 111 managers (25 nurse managers, 19 environmental health managers, and 11 business managers)

Group B 32 of 34 directors (27), acting directors (2), or former directors (3) of local health districts

Group C 13 of 14 central office executives and directors

Group D 19 of 25 directors of divisions in the central office, plus 1 group response from 3 division directors

Performance Scores

Crude and percent scores for the three overall performance measures were examined for all respondents and for district and central office respondents separately. A summary of these results is provided in Tables 1 and 2.

The different response patterns between the district and central office respondents are not surprising since the district directors were reporting on performance in their health districts and the central office executives and directors were reporting on performance statewide. A substantial number of "Don't Know" responses were provided by the central office respondents for questions based on performance of the 22 measures.

For the 20-measure panel, district directors reported a mean of 11.76 measures performed in their districts (or 58.8% of the maximum score). Central office respondents reported a mean of 6.93 measures performed statewide (34.6% of the maximum score).

A similar pattern appeared for the 22-measure panel. District directors reported a mean of 13.38 of the measures performed within their districts (60.8%) while central office respondents reported a mean of 8.21 measures performed statewide (37.7%).

Table 1
Number and Percent of Measures Performed
At the District Level and Statewide
As Reported by District and Central Office Respondents
Virginia Public Health Performance Study, 1999

	Mean Number of Measures Performed in Health Districts as Reported by District Directors (n=34)	*Mean Percent of Maximum Possible Performance in Health Districts as Reported by District Directors*	*Mean Number of Measures Performed Statewide as Reported by VDH Central Office Respondents (n=14)*	*Mean Percent of Maximum Possible Performance Statewide as Reported by VDH Central Office Respondents*
20 Measures	11.76	58.8%	6.93	34.6%
22 Measures	13.38	60.8%	8.21	37.3%

For the EPHS "needs met" score, there was less variance between district and central office respondents. (Table 2) Mean EPHS "needs met" scores as reported by the district respondents was 20.79 of a possible score of 40.0 (52.0%), while the mean reported by central office respondents was 17.0 out of a possible score of 40.0 (42.5%).

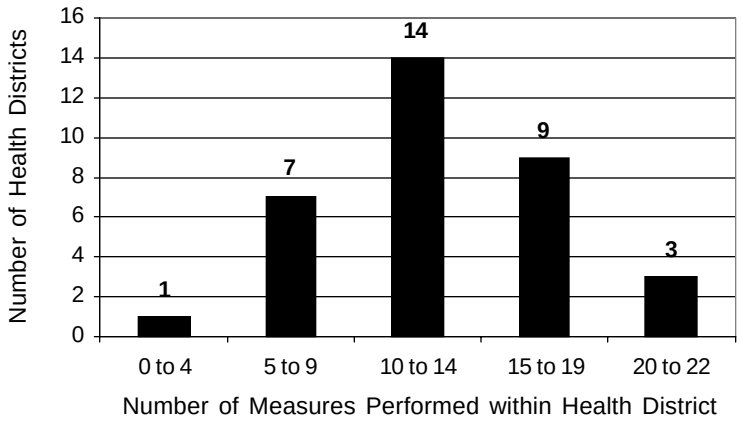
The range in scores for the district responses was substantial for each of the three main measures. For the 20-measure panel, the range was 4-20 measures performed (20.0% - 100.0%). For the 22-measure panel, the range was 4-22 measures performed (18.2% - 100.0%). For the EPHS needs met measure, the range of scores was 5-35 (30.0% - 57.5%). Figure 2 illustrates the distribution of scores for the 22-measure panel for district director responses.

Table 2
Needs Met Scores and Percent of Maximum Scores for Essential Public Health Services Performed at the District and Statewide Levels As Reported by District and Central Office Respondents Virginia Public Health Performance Study, 1999

	Mean EPHS Needs Met Score for Health Districts as Reported by District Directors (n=34)	*Mean Percent of Maximum Possible EPHS Needs Met Score for Health Districts as Reported by District Directors*	*Mean EPHS Needs Met Score as Reported by VDH Central Office Respondents (n=14)*	*Mean Percent of Maximum Possible EPHS Needs Met Score Statewide as Reported by VDH Central Office Respondents*
EPHS Needs Met	20.79	52.0%	17.00	42.5%

As expected, the correlation between scores for the 20- and 22-measure panels was nearly perfect (correlation coefficient was 0.994 for all respondents and 0.993 for district responses). The correlation between the EPHS "needs met" scores and scores for the 22-measure panel was slightly higher than with the 20-measure panel (0.640 and 0.619, respectively).

Figure 2
Frequency Distribution of Scores on 22 Public Health Performance Measures Virginia Public Health Performance Study, 1999 (n=34)



These contributed to the greater difference between the two groups in their responses to the 20 and 22 measures than their responses to the EPHS "needs met" questions.

Table 3 provides data comparing responses from district and central office respondents as to the performance of each of the 22 performance measures. The district directors reported on performance within their districts and the table shows the percent of health districts performing each measure. The central office executives and directors reported on performance statewide and the table indicates the percent of central office respondents reporting that each measure was performed statewide. While not directly comparable information, Table 3 suggests there are differences in the perspectives of the two respondent groups. For

Table 3
District and Central Office Responses for
22 Performance Measures
Virginia Public Health Performance Study, 1999

EPHS Addressed (Question #)	*Performance Measure*	*Percent of Health Districts Performing Specific Measures as Reported by District Directors (n=34)*	*Percent of VDH Central Office Respondents Reporting Specific Measures Performed (n=14)*
EPHS 1 (Q1)	Community health profile	50.0	21.4
EPHS 1 (Q2)	Analysis of determinants and contributing factors	47.1	35.7
EPHS 1 (Q3)	Analysis of preventive service use	26.5	21.4
EPHS 2 (Q7)	Timely epidemiological investigations	100.0	85.7
EPHS 2 (Q8)	Behavioral risk factor survey	44.1	57.1
EPHS 2 (Q9)	Necessary laboratory services available	97.1	64.3
EPHS 3 (Q12)	Public informed on health issues	76.5	57.1
EPHS 3 (Q13)	Regular reports to the media	67.6	50.0
EPHS 4 (Q16)	Network of support and communication	79.4	42.9
EPHS 4 (Q17)	Informing local elected officials	85.3	50.0
EPHS 5 (Q20)	Community health action plan	32.4	14.3
EPHS 5 (Q21)	Prioritization of community health needs	50.0	21.4
EPHS 5 (Q22)	Community health initiatives based on priorities	64.7	42.9
EPHS 5 (Q23)	Resources allocated based on community plan	41.2	14.3
EPHS 5 (Q24)	Resources deployed based on priorities	35.3	0.0
EPHS 5 (Q25)	Organizational self-assessment for health agency	41.2	14.3
EPHS 6 (Q28)	Mandated programs & services implemented	85.3	42.9
EPHS 7 (Q31)	Needs addressed through provision or linkage	67.6	42.9
EPHS 8 (Q34)	Public health workforce adequately trained	82.4	71.4
EPHS 9 (Q37)	Effects of public health services evaluated	50.0	7.1
EPHS 9 (Q38)	Programs adequately monitored and evaluated	35.3	7.1
EPHS 10 (Q41)	Research and innovation enabled	79.4	57.1

example, despite the presence of a statewide behavioral risk factor survey effort, almost half the central office respondents reported this was not done and more than half of the district directors reported that the population of their district had not been surveyed for behavioral risk factors in the past 3 years. Also, all of the district respondents reported the performance of timely investigations in their districts. However, several central office respondents did not confirm that performance statewide. These differences notwithstanding, the relative ranking of the 22 measures was similar for both respondent groups (i.e., measures rated higher by the district directors were also rated higher by the central office respondents and measures rated low by the district directors were also rated low by the central office respondents).

A comparison of the response patterns for district and central office respondents for the EPHS "needs met" scores shows a similar pattern. (Table 4) The district response means exceeded the central office response means for all ten essential public health services. However, there was little difference in the relative rankings, i.e. items that scored higher in the district responses also scored higher in the central office rankings and vice versa. Of the seven measures reported as most frequently performed within health districts, four were rated among the seven most frequently performed measures statewide. Six of the measures least frequently performed within districts were among the eight least frequently performed measures statewide, as reported by the central office executives and directors.

The different response patterns between district and central office respondents raise serious questions as to the validity and reliability of any results derived from combining all responses. For that reason

Table 4
District and Central Office Ratings for
Essential Public Health Services Needs Met Measures
Virginia Public Health Performance Study, 1999

EPHS Addressed (Question #)	*Mean Rating for Specific EPHS Needs Met in Health Districts as Reported by District Directors (n=34)*	*Mean Rating for Specific EPHS Needs Met Statewide as Reported by Central Office Respondents (n=14)*
EPHS 1: Monitor health status (Q6)	1.76	1.33
EPHS 2: Diagnose & investigate health problems (Q11)	2.65	2.54
EPHS 3: Inform, educate and empower public (Q15)	2.06	1.67
EPHS 4: Mobiize community partnerships (Q19)	2.09	1.62
EPHS 5: Develop policies & plans to support community efforts (Q27)	1.29	1.09
EPHS 6: Enforce laws & regulations that protect health (Q30)	3.12	3.00
EPHS 7: Link to needed services, provide when not available (Q33)	1.85	1.73
EPHS 8: Assure a competent workforce (Q36)	2.29	1.86
EPHS 9: Evaluate effectiveness of services (Q40)	1.82	0.93
EPHS 10: Research for new insights and innovative solutions (Q43)	1.85	1.38

Note: rating is on a 0-4 scale (4 = maximum score)

the primary emphasis will be on district-level responses, although central office-level responses will be considered in the examination of several study questions.

High and Low Performance

Several measures related to the essential public health services were identified as performed at comparatively high or low levels in this study (Tables 3 and 4). District responses indicated high performance (i.e., over 75%) for the following measures:

- Timely epidemiological investigations (Q7)
- Public health laboratory service availability (Q9)
- Carrying out mandated programs (Q28)
- Workforce development (Q34)
- Informing local elected officials (Q17)
- Network of support and communication (Q16)
- Research and innovation activities (Q41)
- Public information and education (Q12)

Low performance (i.e., less than 46%) levels were reported for the following measures:

- Analysis of preventive service use (Q3)
- Community health action plans (Q20)
- Deploying resources for prevention (Q24)
- Evaluation of programs using appropriate standards (Q38)
- Resource deployment consistent with community health plans ((Q23)
- Organizational self-assessments ((Q25)
- Local behavioral risk factor surveys (Q8)

Responses as to EPHS effectiveness (percent of needs met for each EPHS) also indicated varying levels of performance among the various EPHS. Performance was highest for #6 - Enforcing laws and regulations, #2 - Diagnosing and investigating health problems and #8 - Assure a competent workforce. Performance was lowest for #5 - Comprehensive policies and plans, #1 - Monitor health status and #9 - Evaluating the effectiveness of services.

As noted previously, central office respondents concurred with the relative rankings as regards performance of these measures.

Implications

The public health system in Virginia addresses performance of public health's core functions and essential public health services. Health districts in Virginia carry out these public health roles to varying degrees across all three core functions and ten essential public health services in nearly all health districts. The Virginia public health system is clearly in the "core functions business," although there are indications that these concepts are not equally embraced and executed in all parts of the system.

Performance of Core Functions and Essential Health Services

Several important performance implications emerge from this study. Overall performance levels were comparable to findings from several recent state and national studies using similar measures. Based on

responses from the health districts, 1999 core function-related performance scores in Virginia were very similar to scores from a sample of U.S. local health jurisdictions in 1995. Performance levels, while higher than scores from a statewide assessment in Kansas in 1998, were lower than scores from a 1999 Illinois study. When Virginia health districts are compared with health jurisdictions of similar sized populations in the national and Illinois studies, the Virginia districts scored somewhat lower on these measures.

Performance was generally viewed similarly by VDH central office and district respondents in terms of relative scores for the various measures although VDH central office respondents reported somewhat lower scores than their district counterparts. This is partly explained by the higher frequency of "Don't know" responses by VDH central office respondents. Central office respondents reported somewhat lower scores for the EPHS percent needs met questions, as well. There was greater variability in responses from district and central office staff as to both performance and factors important for performance.

No observed differences in performance by size of jurisdiction or characteristics of district directors were identified in this study. Study participants suggested additional analysis that would consider the effects of regional differences within the Commonwealth, population density, and funding levels (total and by source). An analysis of health district per capita expenditures in relation to performance was performed using expenditure data from 1998. Per capita expenditures varied inversely by size of population served, but there was no consistent relationship with core function-related performance.

Contributors To Improved Performance

Several factors appear to be associated with higher levels of performance and, therefore, represent possible approaches for improving performance in health districts in which they are currently lacking. These generally relate to implementation of coordinated community health improvement planning processes that include profiles of community needs and resources, prioritization of identified needs, and implementation of community initiatives consistent with priorities.

Current performance in districts was related to local leadership activities, an adequate number of trained staff, and the specialized skills of staff. Statewide current performance was a function of adequate numbers of staff with specialized skills, adequate funding, and leadership at the state level. District directors and central office directors perceived improved performance to be related to greater state-level leadership and increased financial resources. District managers felt that local leadership was important in improving performance.

For each of the Essential Public Health Services, respondents from all groups identified specific ways in which performance could be improved, beyond just increasing funding. Following is a summary of key responses for each EPHS:

#1 - Monitor health status to identify community health problems

The quality and the integration of information systems were mentioned as crucial to this service as well as for #9. Respondents stated that many reports are made available but they are not integrated or linked. Districts want to obtain an overall picture of the health of their communities. "It is difficult to interest local officials or agencies in a problem if the data are not county specific." Districts adjacent to other states need the ability to capture data on residents that seek services in the nearby state. Annual vital statistics reports need to appear sooner. Integration across various public data sources, particularly access to Medicaid data, would be helpful.

#2 - Diagnose and investigate health problems and health hazards in the community

All groups thought it was crucial to have additional personnel assigned to this task, but they also emphasized the need for training of the staff (see #8 below). Many district staff, particularly nurses, are trained in direct care of patients but not in epidemiology, which is needed for this EPHS.

#3 - Inform, educate, and empower people about health issues

Health department staff do not have the health education skills needed for this EPHS so need training (see #8 below). Additionally, respondents felt that community partnerships (see #4) with the private and voluntary sectors could help improve performance.

#4 - Mobilize community partnerships to identify and solve health problems

To enhance the development of partnerships, training, information systems, and leadership were emphasized. "Our staff need training in how to develop partnerships." "We need good data in order to interest local people in working with us on problems." "Developing partnerships is very time consuming and, therefore, difficult to carry out when resources are limited." "In rural or low income areas, there is a limited number of community people willing to work on committees or coalitions and few resources to bring to the table. We need to be selective in where we develop local partnerships and not expect the same people to work on everything." "The state must be willing to bring something to the table and not just ask the partners for something." "Coalitions must be built with other state agencies, not just with the private sector."

#5 - Develop policies and plans that support individual and community health efforts

All groups agreed that performance on this EPHS could be improved only with leadership at the state level, followed by local leadership. Respondents wanted a vision, mission and strategic plan for the health department, with consistent leadership. " The Commissioner has to be able to set a vision." "There is no consistent program without leadership at the state level." They noted that each state health commissioner (4 in the past 5 years) has changed priorities for the department. "We need health issues to be a top priority as they are in some other states." "There is no state advocacy for public health in Virginia."

The need for state leadership was paramount for other EPHS as well: #7, #8, #9 and #10. "The state health department needs to define the mission for the department."

#6 - Enforce laws and regulations that protect health and ensure safety

More personnel are needed to improve performance in this area personnel not only to enforce the laws and regulations but also to revise, streamline and update them.

#7 - Link people to needed personal health services and secure the provision of health care when otherwise unavailable

Several respondents noted that this service required leadership at the national level but also that the state needed a coordinated plan for a safety net of medical care. Additional funds plus leadership at the state and local levels would be necessary to expand this service.

#8 - Assure a competent public and personal health care workforce

Leadership and training are important for assuring a competent public health workforce. Many persons stated the state health department needs to reestablish the training office and staff that were eliminated several years ago. Training needs to become a priority. Current staff do not have the skills to undertake many of the new essential services. "We are not taking advantage of our greatest health department asset - our staff."

One district director pointed out that "staff are getting older and retiring; there are no young people in the districts to mentor or train to take their place." Recommendations included distance learning, computer-based training, and attendance at workshops outside the health department. While not reflected in the overall scores, the need for training was mentioned more often by more interviewees than any other need except for consistent state health department leadership.

#9 - Evaluate effectiveness, accessibility, and quality of personal and population-based health services

Upgrading the quality of information systems is a key factor in being able to evaluate services. One person said, "There is no accountability for community-based efforts. The only accountability is for activities that can be measured easily; these are not necessarily the right activities to be undertaken."

"State health leaders need to indicate that evaluation is important" and make training in evaluation methods available to staff.

#10 - Research for new insights and innovative solutions to health problems

In general, survey respondents thought this function was more appropriate for institutions of higher education, since health department staff had neither resources nor expertise for research. District directors and central office directors said that arranging such research was the responsibility of state health department leadership; district managers felt that district directors should take a lead role in obtaining such research.

All 10 Essential Public Health Services

While all respondents listed additional resources and leadership as the most important factors for improving service, a large number of the comments in the interviews related to the need for training. Perhaps the best summary comment was "We need different skill sets to have optimum performance in these 10 essential services. We need to train existing staff with new skills or replace them with persons that have these skills."

Different Perspectives for Examining Performance and Capacity

This is the first study that compared responses from local health respondents with those from respondents in state health agency positions. As expected, there were many more "Don't know" responses provide by the VDH central office respondents. However, the assessment by the central office respondents of the percent needs met for each of the essential public health services was generally consistent with responses from the district medical directors. There were several VDH central office respondents whose scores on the various performance panels were very close to the aggregated responses from the districts. These respondents,

perhaps not surprisingly, were individuals in positions that most regularly interacted with and directly supervised district public health activities.

The validity and usefulness of responses in the performance component of this assessment were enhanced by the use of several different strategies for collecting data. Respondents provided information in terms of Yes/No responses, identification of specific qualities present, and estimation of percent of needs met for each of the essential public health services. These various methods provided consistent response patterns. The multiple methods used in this study allow for a richer understanding of what respondents meant in their responses as to whether measures were achieved and to what extent needs associated with the various essential public health services were addressed. For example, the 22 measures were examined in terms of whether a "Yes" response correlated with a greater likelihood of "all needs met" or "most needs met" response for its associated essential public health service. Of the 22 measures, 12 had a likelihood ratio of 2.00 or greater and 5 had a likelihood ratio of 1.50 or less. These findings indicate that most of the 22 measures are well correlated with respondent perceptions as to the effectiveness of the essential public health services in their districts. The separate perspectives of district medical directors and central office leadership also served to provide different views and insights on the performance of core functions and essential public health services in the Commonwealth.

The capacity study also provided a variety of different perspectives from several key segments of the VDH workforce. The ability to examine performance from a perspective of what it takes to perform as well as what is actually performed generates insights into concrete steps that can be taken to improve performance. The various respondent groups in the capacity study also serve to bolster the credibility and legitimacy for future public health improvement initiatives.

Conclusions

The most important conclusions and results of this assessment will be those of the public health community in Virginia. They are in the best position to understand and appreciate the findings and implications from the extensive data and information collected in this assessment and determine which decisions and actions will be most useful to further improve public health practice within the Commonwealth. However, several general conclusions and recommendations can be drawn from this study.

Public health performance has evolved to a substantial degree in Virginia. The statewide system is organized around public health's core functions and essential public health services and it performs these functions at a level consistent with national norms. However, the acceptance of core functions and essential public health services as the basis for organizing public health activities is uneven across the state with a substantial emphasis remaining on categorical program activities at both the statewide and district levels.

Performance of essential public health services and key practices shows a wide variation; however, these differences are not associated with population size or district director characteristics. The state and district systems leaders share similar views of how well specific essential public health services and practices are carried out in the Commonwealth and what capacities and processes are necessary to improve performance.

Key aspects of community health improvement processes could be enhanced in many districts; however, district directors believe that this will require greater state-level leadership and additional public resources. Recommendations toward this end include:

- Share and discuss the findings of this assessment with VDH central office and district leadership.
- Maintain a public health system data base at an institution or organization outside state government so that additional data can be added to extend the analyses developed for this report, and so that longitudinal studies of performance and capacity can be undertaken in the future.
- Stimulate widespread implementation of community health improvement processes in all districts and develop a statewide plan to promote, train, and support these efforts on an ongoing basis.
- Consider adopting Assessment and Planning Excellence through Community Partners for Health (APEX-CPH) for use by all health districts as tool for strategic planning, community-wide public health system self-assessment, and community health improvement.
- Review state laws and regulations to determine whether they adequately address core function and EPHS responsibilities at the statewide and district levels.

PUBLIC HEALTH LAWS

The mission of public health is fulfilling society's interest in assuring the conditions in which people can be healthy.

Virginia contracted with the Georgetown/Johns Hopkins Program on Law & Public Health to complete an assessment of public health laws in Virginia. Virginia was found to have a strong legal and regulatory infrastructure to support public health practice. While some refinements may need to be made to ensure privacy, Virginia appears to be ahead of the curve in terms of public health statutes.

Introduction

The preservation of the public health is among the most important goals of government. In its 1988 report, *The Future of Public Health*, the Institute of Medicine strongly recommended that the United States reform its public health infrastructure, training capacity, and body of enabling laws and regulations. More recently, the United States Department of Health and Human Services recommended public health law reform as part of its Healthy People 2010 initiative. In response, some states have updated and revised their public health laws. Most states, however, have not. The law in many states remains ripe for reform. Because law enables government to exercise public health powers, outdated laws may thwart public health goals.

This report reviews the state constitutional, statutory, and administrative laws supporting the public health system in the Commonwealth of Virginia and identifies potential areas for statutory reform. Virginia's public health system is deeply complex, with intricate relationships among the federal government (including the Centers for Disease Control and Prevention, Environmental Protection Agency, and Department of Defense), state government [primarily the Virginia Department of Health (VDH), the Department of Environmental Quality (DEQ), and the Department of Agriculture and Consumer Services (VDACS)], and local governments (including counties, cities, towns, and other municipalities).

The report is part of Virginia's *Turning Point* Initiative, Collaborating For A New Century in Public Health, supported by a grant from the Robert Wood Johnson Foundation. This initiative provides technical support for state and community public health partnerships. Particularly, the Project seeks greater understanding of the current constitutional and legal structure of public health powers in Virginia, with a view toward improving the legal infrastructure at the state and local levels of government.

The Project was conducted in two stages. Stage I involved a summary analysis of state constitutional, statutory, administrative, and case-based public health laws toward the preparation of this report which thoroughly examines public health law in Virginia. This report provides both a general and sometimes specific review and analysis of constitutional, statutory, administrative, and case-based public health law. The substance of the report is not intended to be exhaustive, but rather demonstrative of various facts of Virginia public health law.

The report first reviews the concept and definition of public health law, including issues of federalism, to provide some context for a discussion of Virginia public health law. Second, it examines the current status of Virginia law, addressing in some detail three principal issues: (1) public health authority and functions at the state and local levels, (2) the legal relationship between state and local public health entities, and (3) the status of laws concerning health information privacy and confidentiality.

Stage II involves expert consultation between a high-level panel of governmental officials, public health experts in the public and private sectors in Virginia, state legislators, academics, and members of the Virginia *Turning Point* Committee.

Virginia Public Health Law

The Virginia Constitution

Like the federal Constitution, the Virginia Constitution sets limits on the powers of the state while providing affirmative grants of governmental powers. The Commonwealth of Virginia's constitution explicitly provides many of the same or similar guarantees of individual rights set forth in the federal Constitution. These rights include due process rights to life, equal protection, freedom of religion and speech, and a prohibition against unreasonable searches and seizures. Unlike some states, however, the Virginia Constitution does not explicitly provide for additional protections such as an individual's right to privacy, although the Commonwealth's legislature (the General Assembly) has acted where the constitution is silent (see Virginia Public Health Information Privacy Laws below).

While the Virginia constitution does not explicitly grant the General Assembly the power to promote or protect public health or to provide for public welfare, the General Assembly is given broad authority to act in areas not otherwise restricted. The omission of specific grants of authority shall not be construed to deprive the legislature of such authority. As a result, Virginia public health law and regulations are largely defined by the General Assembly.

The Virginia constitution also authorizes the legislature to create political subdivisions, subject to few limits. Pursuant to this concentration of lawmaking power, the legislature has organized the Commonwealth into 95 counties and hundreds of cities, towns, and other regional governments. Virginia operates under the Dillon Rule which states that local governments have no powers other than those expressly or impliedly granted them by the state. As a result, Virginia public health law and regulations are largely defined by the State legislature, executed and refined by state agencies, and subsequently followed and administered at the local level of government.

> The Virginia constitution, unlike some states' constitutions, does not expressly empower local governments with "home rule" powers.

The General Assembly may specifically assign local governments the power to create ordinances or other laws in the interest of public health. Occasionally, local enactments pursuant to these delegations of public health powers may interfere or overlap with state law. When this occurs, the authority of the state to act prevails, though Virginia courts try to reconcile such overlap wherever possible.

Virginia Public Health Statutes

Unlike many states, Virginia has statutorily enacted a comprehensive and fairly sophisticated mission statement regarding the protection of the health and safety of its citizens:

The General Assembly finds that the protection, improvement and preservation of the public health and of the environment are essential to the general welfare of the citizens of the Commonwealth. For this reason, the State Board of Health and the State Health Commissioner, assisted by the State Department of Health, shall administer and provide a comprehensive program of preventive, curative, restorative and environmental health services, educate the citizenry in health and environmental matters, develop and implement health resource plans, collect and preserve vital records and health statistics, assist in research, and abate hazards and nuisances to the health and to the environment, both emergency and otherwise, thereby improving the quality of life in the Commonwealth.

Pursuant to this broad, tripartite mission, the Virginia General Assembly has declared public health to be a fundamental, governmental responsibility and has subsequently enacted an array of statutes creating and authorizing various state and local governmental agencies and departments to regulate and carry out public health functions.

Many of these agencies are overseen in the executive branch by the Secretary of Health and Human Resources. The Secretary, appointed by the Governor and subject to confirmation by the General Assembly, carries out a host of duties regarding multiple state health agencies at the discretion of the Governor. These duties include (1) resolving administrative, jurisdictional, operational, or policy conflicts between state health agencies; (2) formulating a comprehensive budget for health-related programs; (3) holding agency heads accountable for their administrative, fiscal and program-related responsibilities; and (4) developing goals, objectives, and policies toward the effective and efficient operation of government.

State agencies which contribute to public health objectives include the ***Department of Emergency Services*** (which coordinates the state's emergency preparedness and response efforts for a variety of disasters); the ***Department of Labor and Industry*** (primarily responsible for occupational safety and health); the ***Department of Health Professions*** (which provides for the licensure of physicians and nurses); the ***Department of Rehabilitative Services***, the ***Department for Rights of Virginians With Disabilities***, and the ***Council on Human Rights*** (which assist individuals with disabilities concerning issues of abuse, neglect, and discrimination); the ***Department for the Aging*** (responsible for planning, coordinating, funding, and evaluating some health-related programs for older Virginians); the ***Department of Mental Health, Mental Retardation and Substance Abuse Services*** (concerned with mental health issues, including research and surveillance); the ***Department of Medical Assistance Services*** (which administers the state's Medicaid services to the Commonwealth's low-income population); the ***Joint Commission on Health Care*** (a legislative commission which studies, reports, and makes recommendations to the General Assembly on multiple health-related areas); and the ***Virginia Tobacco Settlement Foundation*** (recently established to allocate money from the Virginia Tobacco Settlement Fund to programs and initiatives that seek to limit minors' access to tobacco products).

Most traditional public health functions in Virginia are centrally administered, if not performed directly, by one of three state agencies: the ***Virginia Department of Health*** (VDH) (www.vdh.state.va.us), the ***Department of Environmental Quality*** (DEQ) (www.deq.state.va.us), and the ***Virginia Department of Agriculture and Consumer Services*** (VDACS) (www.state.va.us/~vdacs/vdacs.htm). The respective duties and functions of these state agencies, though at times overlapping, are distinguished by the general legislative intent underlying the agency's establishment. VDH is primarily responsible for regulating public

health matters related to the control of communicable diseases, administration of public health care, and some issues of public safety. DEQ is delegated the authority to regulate environmental threats to health. VDACS is responsible for the control of some public health nuisances, although many of its duties intersect with those of VDH and DEQ.

Municipal/Local Public Health

As mentioned above, Virginia has constitutionally provided for the establishment of counties, cities, towns, and regional governments. Virginia statutory law further classifies these divisions of local government and clarifies their powers. Among other public health powers, municipal corporations (counties and cities) can regulate in the interests of (1) abating public nuisances; (2) requiring trash removal; (3) removing or repairing dilapidated buildings; (4) requiring security fences surrounding swimming pools; (5) requiring the installation of smoke detectors in certain buildings; and (6) prohibiting certain forms of discrimination beyond that prohibited by federal or state law. State law also conveys the general power to municipalities to promote the general welfare, safety, and health. Local ordinances may not offer less protection than that afforded by Virginia state law or administrative regulations.

While counties and cities are allowed some discretion in the exercise and passage of public health ordinances via authorization pursuant to state law, most public health functions are undertaken through local departments of health which are contractually overseen by the Virginia Department of Health. Each county and city in Virginia is statutorily required to "establish and maintain a local department of health which shall be headed by a local health director," who must be a licensed physician in Virginia. Counties and cities may enter into contracts with the State Board of Health to assist, financially and otherwise, with the operation of the local health departments. The State Health Commissioner has broad discretion in managing such health departments, is responsible for appointing a local health director, and may consolidate these departments into district health departments to allow for the performance of their functions in a more efficient and economical manner. There currently exist 35 local health districts in Virginia.

Counties and cities which choose not to enter into such contracts with the Board of Health are authorized to operate independent local health departments and appoint their own health directors, although the Commissioner retains significant oversight over these departments as well. Only the Cities of Richmond and Arlington, and Fairfax County, have established independent health districts. The Board of Health is authorized to perform the duties of local health directors and departments for those counties and cities which do not enter into contracts with the Board or which do not establish independent health departments.

Local boards of health are statutorily and contractually bound to administer many public health functions and services in accordance with state requirements. While this dual relationship could be seen as de-emphasizing the role of local governments in public health, the state and local relationship is more cooperative in practice. VDH officials recognize the need for a strong local presence in public health and seem willing to listen to local concerns. Local health officials understand the need for state oversight, expertise, and funds to conduct public health programs and initiatives. As a result, public health goals are ideally achieved through a mutually-respectful working relationship between state and local public health officials.

Virginia Public Health Information Privacy Laws

Absent an explicit state constitutional right to privacy, the Virginia legislature has enacted multiple laws to protect the confidentiality of personal medical and public health records. The Privacy Protection Act of 1976 requires government agencies that maintain information systems containing personally-identifiable information (including medical information) to ensure safeguards for personal privacy. However, the Privacy Act is more procedural than substantive. Substantive health information privacy protections are generally set forth in the Medical Records Privacy Act. This law recognizes a patient's right of privacy in the content of his or her medical record and generally prohibits medical providers from disclosing (or others from redisclosing) such records without a patient's informed consent. The Supreme Court of Virginia has held that the unauthorized disclosure of medical records by a medical provider constitutes medical malpractice. However, the general rule against disclosures is subject to multiple exceptions. It does not apply to worker's compensation claims or the medical records of minors. Disclosures without consent are allowed for over two dozen statutory reasons, including, for example, (1) pursuant to subpoena or legal testimony; (2) where necessary to care for the patient or collect a provider's fee; (3) "to communicate a patient's specific and immediate threat to cause serious bodily injury or death of an identified or readily identifiable person;" or (4) "[a]s required or authorized by any other provision of law including contagious disease, public safety, and suspected child or adult abuse reporting requirements."

Though the Commonwealth has declared information held by state agencies to be public records open to inspection pursuant to its Freedom of Information Act, it specifically exempts from disclosure "[m]edical and mental records." This exception, however, does not prohibit a state agency from releasing confidential health or safety information to the subject person whose health or safety is affected, or to a physician of the subject person's choice. For minors (under age eighteen), such access to medical records must be asserted by a parent or guardian.

Like most states, Virginia has not implemented broad public health information privacy protections through the passage of a single statute. The legislature has instead enacted a series of privacy provisions relating to specific public health information, including vital records and health statistics, HIV/AIDS data, communicable disease information, infant screening for certain genetic and metabolic diseases or congenital anomalies, data gathered by the statewide cancer registry, medical research data, and insurance records.

On a statewide level, the legislature has created a Center for Health Statistics which collects health-related records, vital records, and other data in conjunction with the Board of Health and VDH under the supervision of the Commissioner. Concerning vital records and statistics, county and city health directors are authorized to serve as registrars of vital records and health statistics and collect personally-identifiable health records in their respective jurisdictions. Some data services, including compilation, storage, analysis, and evaluation are performed on a contract basis by non-profit entities. Though the aggregate data gathered by the Center for Health Statistics are publicly available, the specific identities of patients, physicians, and employers may be released only for research purposes and only if such data are encrypted and cannot reasonably be expected to reveal patient identities. Further, no report published by the non-profit organization or by the Commissioner may present personally-identifiable information.

The State Commissioner of Health is given broad authority to examine medical and health records, and may examine those records of "every practitioner of the healing arts and every person in charge of any medical care facility" in investigating, researching, or studying diseases "of public importance." Though the

Commissioner is required to preserve the anonymity of such records, she may divulge the identities of relevant patients and practitioners in the course of an investigation, research, or study.

Specific privacy provisions vary with respect to certain diseases. The records of children suffering from congenital anomalies, for example, may be released only to their physicians, parents, and for studies which do not identify the individuals. HIV test results submitted for laboratory analysis may not be disclosed except: (1) to the health care provider ordering the test; (2) to the person who is the subject of the test; (3) to the spouse of the subject of the test; (4) to VDH; (5) to parents or legal guardians of minors; (6) to any facility which procures, processes, distributes or uses blood, bodily fluids, tissues, or organs; (7) by court order; (8) to medical or epidemiological researchers for statistical use only; (9) to departments of health outside the Commonwealth for disease surveillance and investigation; and (10) to other persons authorized by law to receive such information.

Guidelines for Reforming Virginia Public Health Law

Through active reform over the past several decades, Virginia has re-organized its public health system at the state and local levels, updated its statutory code in many instances, and aggressively implemented effective state administrative regulations. Most public health experts in the Commonwealth suggest that the state's public health system is well-designed, thorough, and functioning. The public health is well-regarded for its ability to attend to most traditional public health functions, including communicable disease control, health prevention activities, licensing and inspection, public health education, and environmental issues. Virginia is well ahead of other less-populated and less-wealthy jurisdictions which may struggle to provide even basic public health services to their entire populations because of a fundamental lack of organizational structure and deficient public health laws. Despite these observations, the Commonwealth's public health laws can be improved.

Whether Virginia should reform its substantial and, at times, sophisticated public health law remains open. Law reform is not the inevitable result of the public health law improvement process pursuant to the *Turning Point* Project (although it could be). While this report discusses many of the benefits of law reform, there are also risks. First, once a bill is introduced in the legislature, it can become politicized. Second, enacted laws can tie the hands of public health officials. For this reason, many public health professionals emphasize the need for flexibility. Finally, once the relationships among various groups are delineated in legislation, it could result in great distrust. Despite these evident risks, it is important to see the benefits of public health law improvement. With this in mind, we propose the following guidelines for public health law improvement in Virginia, not necessarily in order of their priority.

Avoid Separate Disease Classifications and Disease Specific Laws

The primary epidemiologic rationale for classifying diseases and treating them differently is to distinguish between modes of disease transmission. However, the origins of this differential treatment may be better explained by historical and political influences than by reasoned distinctions or thoughtful strategies. The result often creates different standards and procedures for different diseases. Thus, the legal environment for controlling health risks depends on how the disease is classified. A strong argument exists that public health law should be based on uniform provisions that apply equally to all health threats. Public health interventions should be based on the degree of risk, the cost and efficacy of the response, and the burdens on human rights. These considerations cut across disease classifications. Virginia public health law largely reflects these observations in its attempt to classify communicable diseases

under limited headings. The elimination of some existing laws which apply differing standards to certain diseases or conditions will contribute toward the implementation of a single set of standards and procedures, clarify legal regulations, and might diminish politically-motivated disputes about existing and newly-emergent diseases.

Base Public Health Decisions on the Best Scientific Evidence of Significant Risk

In combating public health threats, health officials need both clear authority and flexibility to exercise powers and sufficient guidance. Consequently, an effective and constitutionally-sound Virginia law requires a rational and reliable way to assess risk and establish fair procedures.

Virginia public health law should give public health authorities the power to make decisions based upon the best available scientific evidence. Public health officials should examine scientific evidence in the following areas: (1) what is the nature of the risk (e.g., the mode of transmission)? (2) what is the probability that the risk will result in harm? (3) what is the severity of harm should the risk ensue? and (4) what is the duration of the health risk? Provided health officials act with a good foundation in science, they should be supported by public health law. And where scientific evidence may not provide suitable public health responses, public health authorities should have a flexible range of powers to address such instances.

Provide Fair Procedures

Public health officials need ample and flexible powers to protect the common welfare. Coextensively, the community needs to have confidence in the fairness of public health practice.

Virginia public health law may generally delineate the powers of public health authorities without suggesting the manner in which they may be exercised. For example, Virginia statutory law authorizes the Commissioner ". . . to require quarantine, vaccination or treatment of any individual when [she] determines any such measure to be necessary to control the spread of any disease of public health importance."

Public health law should ensure fair procedures. The nature and extent of the process required depends upon several factors including:

1. The nature of the interests affected;
2. the risk of an erroneous decision;
3. the value of additional safeguards; and
4. the administrative burdens of additional procedures.

Except in an emergency when rapid response is critical, public health law should assure a fair and open process for resolving disputes about the exercise of powers and authority.

In Virginia, some of these procedures are legislatively set forth in the State Administrative Procedure Act which requires standard fair procedures to be followed in the production of administrative regulations as well as the hearing of cases pursuant to the exercise of public health authority by state agencies. These requirements provide a workable framework, but may require additional supplementation in cases where sensitive personal health information is involved or individual liberties may be restrained in the interests of the public health.

State law concerning isolation hearings provides some standard due process protections, including (1) conducting the hearing before an impartial tribunal in a timely manner; (2) the individual's right to information

about the public health action, right to an appeal, and the right to counsel; and (3) the declaration of findings to be made before isolation may be ordered. While these protections collectively represent fair procedures, it is important to note that the authority to isolate individuals extends to anyone who the Commissioner determines may be knowingly engaging in at-risk behaviors which threaten the public health in relation to all communicable diseases. The potential for inappropriate public health responses to certain communicable diseases exists, although statutory law and administrative regulations concerning isolation suggest that the least restrictive course of action be taken in any given case.

Improving Relationships and Resolving Disputes

Regular and meaningful exchange of information between state and local public health agencies is critical. As discussed above (see Benefits of a Public Health Improvement Process), the relationships between federal, state, and local public health authorities are critical. Prior leadership issues and reported failures to work effectively between officials at the state's two primary public health agencies (VDH and DEQ) as well as some distrust of state government among local governments provide ample reasons for increased communication in the future. While Virginia public health relies on core relationships between state public health agencies and local health departments, there exist few legislative requirements that these entities regularly engage in public health discussion. State public health agencies may tend to see their missions narrowly and attempt to avoid certain issues that do not fit neatly under their responsibilities to the detriment of the public health. Local governments may resent what are viewed as unfunded mandates streaming down from state public health agencies where local involvement in the decision-making process is non-existent or not respected.

Rather than rely on public health communication stemming from an emergency or crisis, state and local public health officials should conduct formalized, meaningful, and ongoing discussions with each other and members of the private sector. This could have several beneficial effects. First, it helps to plan in advance to avoid conflicts. Second, it provides a mechanism for responding to crises when they arrive. Third, and most important, it enhances familiarity and trust among different groups in the public health infrastructure.

Balancing Benefits Across the Commonwealth

Virginia's public health system is built around highly-organized, centralized state agencies, primarily VDH and DEQ, that distribute their expertise and resources through state-mandated local departments of health. This system may be commended for stretching its protections to each segment of the population. In other states, many individuals may lack access to and the benefits of any meaningful public health services. While Virginia canvases the state with public health coverage, public health services vary across local health districts for reasons which are both financial and political. Such variances are understandable. They are also ethically problematic where some state citizens enjoy less public health protections depending upon their locale. Where millions of people nationwide cannot afford, or otherwise choose not to obtain, adequate health insurance in the United States' market-based health care system or through Medicare/Medicaid, public health services may be one of few sources of primary care for under-privileged individuals (although nonprofit hospitals, religious organizations, and other private sector entities often provide such care). While the Commonwealth has not assumed a duty to provide individual health care for these persons, it seems incumbent upon the state to ensure that public health benefits are as evenly distributed as possible where it's public health mission includes improving the quality of life for all citizens.

The uneven distribution of public health services is resolvable. Through legal reform or otherwise, Virginia should strive to balance the coverage of public health services and resources across the state for the betterment of its less-fortunate citizens and the improvement of public health outcomes generally.

Private Sector and the Public Health

Public health has always envisioned the cooperative efforts of the public and private sectors. Increasingly states are turning to the private sector (e.g. medical providers, hospitals, health insurers, managed care companies, nonprofit organizations) for assistance with public health goals. While government must remain primarily responsible for the public health, the private sector may serve important roles (e.g., population-based disease screening, provision of indigent care, surveillance assistance). Like the relationships between governmental public health agencies, the relationships between public and private sectors can be formalized through state law. As the potential collaboration between public and private sectors becomes a core facet of public health planning, these formal relationships may work overall to strengthen the public health system. While public health officials in Virginia support collaboration between the public and private sectors, there exists little to any law supporting or requiring these joint pursuits.

Data Protection: Public Health Data Needs & Privacy Considerations

The collection, storage, maintenance, and use of vast amounts of information about the health of populations is one of the core functions of public health. Surveillance is among the most important functions of public health, permitting early identification of health threats, targeted delivery of prevention services, and links to treatment and other services. Public health law must enable, encourage, and fund a strong public health information infrastructure.

While Virginia law generally supports the privacy and confidentiality of personally-identifiable, government-held health information, these statutes and regulations singularly and collectively raise some privacy concerns. These statutes may exceptionalize some data to the exclusion of other, equally-sensitive health information, fail to provide meaningful privacy protections, and tend to imprecisely define privacy protections which are provided (although administrative regulations may remedy some of this imprecision). The latter two of these points are perhaps demonstrated concerning Virginia's administrative regulations concerning contact tracing [or as commonly known, partner notification].

Although partner notification is an accepted component of public health surveillance concerning communicable disease, it involves the exchange of sensitive, personally-identifiable information about infected individuals and their partners. Local health departments in Virginia are required to conduct contact tracing in cases involving HIV infection, infectious syphilis, and tuberculosis, and may perform contact tracing for the other diseases ". . . if deemed necessary to protect the public health." The affirmative requirement that local health departments perform partner notification for HIV, syphilis, and tuberculosis suggestively rejects the ethic of voluntarism underlying its practice and may offend the privacy interests of infected individuals. While administrative regulations prohibit the release of names of informants or infected persons to contacts by the health department and otherwise requires all information obtained to be kept "strictly confidential," they do not attempt to clarify the extent and meaning of these protections.

In the absence of a structured statutory approach to protecting public health information privacy, certain privacy infringements and breaches may occur which could have deleterious effects on public

health. Several public health experts in the Commonwealth acknowledge the need for public health information privacy reform.

Statutory provisions governing data collection and privacy must seek to satisfy two goals that will, at times, conflict: ensuring up-to-date information for public health purposes and protecting that information from inappropriate disclosure. Balancing these competing goals can only be accomplished through the implementation of policies and practices consistent with set guidelines. The guidelines below concern only personally identifiable data which pose the most significant privacy concerns.

Justification for Data Collection

Public health authorities should justify the need for data collection and be given flexibility in making these justifications. Valid justifications would include surveillance, disease monitoring, and epidemiological (and related) research; preventing a public health risk; and providing services for the community, including interventions in avoiding and ameliorating public health threats.

Community Access to Information

A community should be generally informed about aggregate data collection by public health departments and its purposes. Even where information is non-identifiable, people should generally be aware of the sorts of data collection undertaken by public health departments. Aggregate public health data should be made accessible by community members for virtually any purpose.

Fair Information Practices

Fair information practices demand that no secret data systems exist, that persons have access to data about themselves, and that public health officials should ensure the reliability and accuracy of the data.

Privacy Assurances

Legally binding assurances of privacy should attach to all personally-identifiable information. Public health officials should maintain confidentiality and ensure a secure data system. Unwarranted disclosures should be prohibited. This does not mean that public health officials should be restricted in essential health uses of data; rather, they should have wide flexibility in using data for all important public health purposes. Thus, public health officials could share information across programs provided the information is necessary to achieve a valid public health purpose.Penalties should exist for unauthorized disclosure for non-public health purposes. Thus, legal protections should prevent unauthorized disclosure to commercial marketers, employers, insurers, law enforcement, and others who might use the information for inconsistent, unwarranted, discriminatory, or commercial purposes.

Conclusion

Virginia's public heath system is commendable in many ways. The Commonwealth's public health laws often reflect sophistication unseen in other jurisdictions. However, there remains opportunities for improvement. The preceding Recommendations, supported by our study of public health law in Virginia, present guidelines for legal reform. Specific statutory language needed to accomplish these reforms remains to be drafted,

reviewed, critiqued, and ultimately submitted to the legislature. The decision whether to undertake legal reform must be carefully weighed by key public health actors in the State. This decision should be ultimately motivated not by political interests nor potential complications, but rather by a desire to improve public health practice and outcomes. Ultimately, this is the overriding goal of the *Turning Point* Project in Virginia.

IMPLEMENTATION STRATEGIES

In order to strengthen public health in the future it is critical to understand where you are and where you want to go. *Turning Point* sought input on places to begin the process of strengthening public health. Workgroup members were recruited to provide input on health education and communications, access to care, communicable disease control, environmental health, and health information. A total of twenty-six different implementation strategies were generated by *Turning Point*'s five workgroups and staff to address concerns raised by the community. Each workgroup analyzed current public health and identified areas for improvement.

All twenty-six possible implementation strategies were presented to the Steering Committee. Detailed information about each strategy was evaluated and discussed. Each individual member of the Steering Committee was asked to select the eight strategies that they thought were the most compelling. The Steering Committee selected nine strategies as most critical to strengthen public health in Virginia.

- Assessing the Economics of Prevention
- Community Health Needs Assessment
- Increasing Active Surveillance
- Information Infrastructure Improvements
- Public Health Marketing and Public Awareness
- Training and Workforce Development
- VDH's Role in the Safety Net
- Water Resource Planning
- Virginia Center for Community Health

Turning Point examined these nine strategies in detail, looking at several critical elements including funding, time frames, and workforce and technology requirements. From these nine strategies, the Steering Committee selected an implementation strategy that combined several critical concerns. This Community Health Improvement Plan incorporates community health needs assessment, public awareness and assessing the economics of prevention. Virginia's *Turning Point* initiative will present this issue for funding to the Robert Wood Johnson Foundation.

Assess the Economics of Prevention

Assessing the economics of prevention would provide VDH the opportunity to quantify costs and benefits of public health programs and services. VDH must show that money spent on prevention leads to positive health outcomes in the long run. This assessment could be done either by a consultant or internal staff hired with health economics expertise. Either way, a study like this would take about two years to complete.

Assessing the economics of prevention could also serve as the basis for program development and media and marketing strategies for the health department. It would give VDH the ability to articulate the costs and benefits of prevention programs. A comprehensive assessment would include a literature search. A review of existing studies would give VDH a better understanding of how the economics of prevention has been assessed in other states. From that point, the assessment would consider other models and compare them to our own. VDH will need to conduct cost benefit analysis on the prevention programs that already exist.

Based upon the results of this analysis, VDH can design new prevention programs. Assessing the economics of prevention will show decision-makers the benefits of prevention. Additionally, it will show health care providers how much money can be saved in partnership for prevention activities.

This assessment could lead to policy decisions and even legislative action to change the way the health department operates. If the assessment shows that money spent on prevention leads to better health outcomes than money spent on direct provision of services, then gradual changes need to occur to reflect VDH's values. The funding structure set between the central office and local health districts will need to reflect the agency's focus and allow local health departments the flexibility to best meet community needs.

Community Health Needs Assessments

Four out of five of *Turning Point*'s workgroups recognized that Virginia does not effectively assess the state's health needs at the community level. This was also a key finding of VDH's internal assessment completed by national consultants, Dr. Bernard Turnock and Dr. Suzanne Dandoy. Throughout the years, needs assessments have been conducted by some individual health districts as well as private health systems. However, there has yet to be a systematic approach to Community Health Needs Assessments that would yield comparable health data statewide.

Barriers to assessments exist at both the state and local level. Health districts may not have the resources to conduct assessments or available tools. Decision-makers may feel that the services provided by local health departments are already well matched to the perceived needs of the community, or that the assessments could lead to community expectations that cannot be met. Statewide, staffing and a focus on mandated services restrict the ability of health districts to accomplish new goals. This lack of budget flexibility to redirect resources to different priorities along with the concern that identification of new initiatives will not get state-level or policy support has not encouraged many localities to do Community Health Needs Assessments.

In order to overcome these barriers, VDH needs to initiate Community Health Needs Assessments at the health district level. These assessments should be done once every five years, with interim reviews driven by community needs. The first step in identifying community health needs is to select an assessment tool. There are many different assessment tools, ranging from those privately developed to those that follow national models developed by public health agencies like the Centers for Disease Control and Prevention. When selecting a tool, it is important to balance the comparability of data with the level of community buy-in. In other words, if the assessment tool were custom built in each community, it may bolster local support but it may not be analogous to data found in other health districts, greatly reducing the comparability of the data. The ideal tool needs a set of questions asked statewide and certain questions tailored to local concerns. Ensuring that community partners are involved in question development will enhance participation. It is important that public health and its partners agree on the appropriate tool and questions.

Once a tool is selected, organizations, including health districts, will need training in order to effectively implement the assessment. Currently, health districts do not have the staff or resources to complete this process on their own. Thus, it is essential to partner with the local community for support. Health districts can partner with local hospitals, universities, and faith communities for staff and funding. Often individuals and organizations closest to the community will be more successful in collecting information. Each health district should work to form volunteer coalitions and to provide the necessary training. Ideally, each health district should try to gain crucial information through mail surveys,

telephone surveys, or door to door surveys. Local health districts may need up to one year to collect community health data.

At the conclusion of the data collection phase, analysis must begin. The raw data should be refined to meet the health information needs of all community partners. The information gained through CHNAs should then lead to at least two products. The first is a Community Health Report Card. This report card would reflect the results of the needs assessment. Then, areas for improvement would be addressed through each community's Action Plan. This second product should outline specific steps to be taken to target each concern identified in the Report Card, and what groups are responsible for specific actions. This process is essential in making sure that the assessments lead to real improvements in community health. Once a comprehensive CHNA has been conducted and the data analyzed, it will be important for public health and its partners to inform decision-makers of the results. When policy makers understand the value of assessment activities, they will be more inclined to resource them. *Turning Point* has chosen to apply to the Robert Wood Johnson Foundation for funds to initiate this process around Virginia.

Increase Active Surveillance

In order to reduce the spread of communicable diseases in Virginia, it is essential for VDH to be able to track when and where diseases occur. There are two types of surveillance used for this purpose: active and passive. Passive surveillance is currently used most frequently to acquire disease diagnosis information. Simply put, passive surveillance involves waiting for physicians to telephone or mail health departments information on reportable diseases encountered in their practices. Active surveillance requires health departments to contact providers and extract disease diagnosis information. Virginia needs to determine the best mix of active and passive surveillance to most effectively stop the spread of communicable diseases. This mix could be determined by a study of modes of surveillance.

Studying surveillance would compare three possible modes of active surveillance with the passive surveillance techniques that are currently used in health departments. The first mode involves public health nurses visiting physicians offices to extract data from patient files, the second focuses on public health nurses calling the physicians offices to get the data, and the third relies on having the physicians' offices call the health department and report disease information to an automated system. VDH could contract with a nurse consultant company to hire nurses to perform these studies. These nurse consultants would receive training about VDH and the particular health district that they would represent in the field.

Ideally, VDH would place one nurse consultant in each of three health districts for at least a three month study. In each district, ten general practitioners' offices would be selected to participate in this study. Five of these offices would be active surveillance sites, allowing the nurse consultant to come into their office and review patient records for disease diagnoses. The nurse consultant would phone the other five offices each week to collect the disease diagnoses information. All other offices in these districts would be able to phone the information into a toll-free automated telephone system that would be developed for any physician to call in their disease diagnoses. This way, the reporting could be done at any time. The automated system would take the same information required on a standard epidemiology form.

Once nurse consultants had gathered the disease diagnoses information, it would be compared with information obtained through passive reporting from the same time period from the previous year. Each physicians' reporting from the previous year would be compared with the results of the nurse consultants' study to see if active surveillance led to more reporting of disease diagnoses. The difference between active

and passive surveillance in the number of disease diagnoses reported would be quantified in order to clearly show what modes of surveillance are best.

One challenge that this type of study presents is the willingness of private physicians to allow the health department to review patient files. However, reducing the burden of reporting may be incentive enough to encourage physicians to allow health department staff to access the information. If enough physicians volunteer for this study, VDH would be able to develop recommendations to enhance surveillance systems. Strong surveillance may lead to better disease control across the Commonwealth.

Information Infrastructure Improvements

To be able to meet the health needs of citizens in the next century, Virginia must create a strong and lasting infrastructure on which to build the public health information system of the future. Resources must be dedicated to enhance health information systems. In order to achieve this goal, VDH should serve as the hub in a coordinated health information system striving for data integration between other state agencies, hospitals, heath plans, and businesses.

As a first step, VDH must continue consolidating its internal information systems. This process began in 1995. With the development of the Virginia Information Systems Integrated On-Line Network (VISION), VDH has improved its capacity to use information technology to support priority business activities as well as to enhance service delivery to customers and staff. Through this operating system, VDH has provided access to a tremendous amount of health information to internal staff and external customers. In order to develop this system further, VDH will need to continue to incorporate other internal data systems under the VISION umbrella. Each system is different and requires individual evaluation and modification before becoming a part of VISION. For instance, before VDH's Immunization and WIC-Net data can be incorporated into VISION, the information must be scrubbed to ensure the data is universal.

Other data systems need to be studied before including them in the VISION system. There are a number of systems that require a gap analysis to assess the current system against end-user requirements. Technology and data needs change rapidly, VDH is contemplating moving to a web-based VISION system that will be simple to use and easy to change. VDH should study the best way to remediate data as well. If a current system is not meeting the needs of the user, VDH should study how to improve its functions to better fulfill consumer requirements. Another major focus of health information is data warehousing. A data warehousing pilot has recently begun and will continue alongside the development of VISION. The structure and purpose of the data warehouse will be determined by the agency's strategic business information requirements. Eventually this data warehouse should link with other external data sources to create an on-line virtual health data center. VDH's goal should be to make all health information available not only to public and private health professionals, but also to the general public via the internet. This must only be done after security concerns have been addressed. To do this, *Turning Point* believes that VDH should be provided the appropriate resources to address gaps in funding for information technology.

Public Health Marketing, Social Marketing, Public Awareness

Public health marketing, social marketing, and public awareness will help raise the public consciousness of VDH's mission and vision and of public health issues in general. Currently VDH does not have a comprehensive strategy to address these needs. However, health education and communication were mentioned as key factors in public health in *Turning Point*'s telephone and consumer surveys, and well as in

focus groups. All of these components should be addressed by an agency-wide plan. Additionally, "*What is Public Health?*" presentations by Virginia's District Health Directors are a starting point to raised awareness. These presentations provide an impetus for community discussion on the importance of improving public health. *Turning Point* has begin discussions on public health within communities, VDH can begin to position itself as the public health agency of the Commonwealth.

To raise public awareness, VDH needs to present itself to the public. Catchy slogans and a logo are useful vehicles. These should appear in all forms of media and can build product recognition with public health in Virginia. Proactively using existing media attention on health issues can change negative publicity to a positive understanding of VDH. A comprehensive public awareness campaign will utilize print, radio, television, and outdoor advertising to target specific health concerns, as well as to enlighten the public about VDH in general.

Social marketing is another component of a comprehensive marketing plan. Social marketing is an approach to program design and intervention strategies. It aims to influence individual choices by sending specific messages to the right audiences at the right time to impact health behaviors. Central office programs and local health districts should be using social marketing approaches as they address the health concerns of their community as discovered in Community Health Needs Assessments. Whether a locality targets smoking, teen pregnancy, or handgun violence, with effective social marketing, health districts should see significant improvements in key areas of concern. To achieve these improvements, VDH will need to partner with other entities in the health care sector to select a health issue and design social marketing concepts. Successful, meaningful strategies will increase the public's understanding and appreciation of public health's and VDH's role. Working together, VDH and partners will be able to inform, educate, and change behaviors.

Training and Workforce Development

The new millennium provides an opportunity to address the changing health needs in Virginia. The public health workforce must be trained in the latest public health concepts to be successful. In particular, health department staff need specific training in communication and public relations. Both central office and local health district personnel need training both to improve performance and to know better how to present public health issues to the public. This would enhance perception of public health. While there are a variety of training and workforce development needs within the health department, *Turning Point* is focusing only on communication and public relations.

The Centers for Disease Control and Prevention's Office of Communications has developed a program for health communicators called CDCynergy. This cd-rom tool can be used to systematically plan health communication interventions within a public health framework. First, VDH needs to determine if CDCynergy is an application that would be useful to the health districts and program offices. VDH should assemble a team of representatives from health districts and program offices to participate in the free two-day training session offered at the CDC. If the tool is be useful, the training session could be replicated in Virginia to a variety of public health staff and partner organizations. The number of participants in the CDCynergy training session is limited to the number of computers that could be linked in one setting. In order to train the greatest number of people, VDH could partner with community colleges to use their computer facilities.

VDH should also develop web-based training modules to educate employees about the health department. The health department could purchase a site license to develop training modules. One product, Trainer 5,

from Micromedium, Inc., has been purchased by Virginia and can be used by state agencies. Agencies have been able to use Trainer 5 without hiring outside expertise in website development or software applications. Utilizing its intranet to train current and new employees, existing staff could create a tutorial that would interactively instruct users on the structure and mission of the health department. With the correct incentives, this tutorial could reach all staff at central office and the health districts. Eventually, this tutorial could be transferred to VDH's external website for public consumption. VDH could partner with the Department of Education to get the training modules placed in school curricula to start teaching concepts in public health at an early age.

Besides the tools mentioned above, specific enhanced skill sets in health communication methods and behavioral-theory based interventions and communication can be taught widely to appropriate staff in the Virginia Department of Health through on-site training sessions and distance learning. This will increase effectiveness with public health's interventions and simultaneously increase awareness of the Virginia Department of Health and public health issues.

VDH's Role in the Safety Net: Assurance or Provision of Services?

VDH needs to determine its role in providing clinical health care services for the medically uninsured and underinsured. Currently this safety net is made up of local health departments, hospitals, free clinics, community health centers, providers, Medicare, and Medicaid. Since the advent of Medicaid managed care, many patients who used to receive care from the health department now have a medical home in the private sector. This has reduced VDH's role in the safety net as well as revenues generated through service delivery. Also, with changes in home health reimbursement laws, it has become more difficult for local health departments to be paid for home health services. These services had supported health department sliding fee scale clinic services. Given the impact on revenue, VDH needs to redefine its role in light of all these changes.

In order to resolve this issue, VDH could contract with a consultant to study the health department's activities relative to the assurance or provision of direct health care services. Also, the ability of the private sector to meet the needs of this population must be considered. Current health care partnerships and areas of special needs should be examined. Because there have been such dramatic changes in the health department's revenues, VDH's funding structure may also need to be adjusted. Most of the funding that local health departments receive is based on the provision of mandatory services or categorical funds for specific programs. However, this structure may not be the most effective in meeting the health needs of each community. The consultant will study different funding strategies that will foster flexibility based on local choice. Some health districts will always serve their communities as the provider of last resort because there are no other providers in many areas to meet those needs. However, in the districts where the needs can be met by the private sector or through innovative partnerships, then resources devoted to clinic services should be free to be used in other ways. The most effective and flexible model will provide funding options that are consistent with community health needs.

The purpose of this assessment will provide VDH information to create new policy reflective of its role and modify funding systems to enhance flexibility. Once that has been accomplished, health departments in consultation with community leaders, can design programs and services to address community health needs.

Water Resource Planning

Ensuring safe drinking water is seen as the most critical function for public health. Available water sources are central to successfully meeting this obligation. Water resource planning is critical not only to the health of our environment, but to the general health of all Virginians. Steps need to be taken today to plan for water resource allocation in the future to ensure the availability of safe drinking water for every citizen of the Commonwealth. There are many organizations involved in water resource planning; however, they lack vision and coordination. It is essential to bring together all of the various actors in the arena of water regulation. VDH should act as a catalyst to unite these actors into one single united group providing strong leadership for water resource management. As a first step, VDH could host a joint meeting of DEQ, the Water Control Board, the State Water Commission, Virginia Economic Development Partnership, and the Department of Conservation and Recreation to explore common goals.

Another action that would strengthen leadership in water resource planning is to expand the State Water Commission. The Commission should include representatives from VDH, DEQ, and Economic Development. These groups need to collaborate to determine the Commonwealth's top priorities in terms of water use, and articulate a common vision and mission to shape future water policy. Developing clear and consistent water policy will help Virginia to become proactive in regards to water use instead of reacting to crises of drought or contamination. This may require review and consolidation of existing water legislation. The involvement of industry and the public is a crucial component in this planning process. Without unification and the definition of one overarching mission and vision, water resource planning will not be effective.

Conservation is the most effective method to address water shortage. It is primarily a behavioral issue, health education is a way to inform the users. To educate people on water conservation issues, VDH should develop an innovative public awareness campaign to reduce per capita water usage by using low flow fixtures or simply trying to use less water in each household.

Another approach to water resource planning is dual systems. Dual systems allow for the use of potable water in some areas and treated graywater in others. Dual systems are commonly used in industrial settings. VDH should sponsor, in collaboration with the Department of Environmental Quality, public forums on the use of dual systems in residential areas. Treated wastewater could be used for irrigation and toilet use, sparing potable water for all other household uses. Several other states have initiated this system and it is worth considering for new development in the Commonwealth. A study such as this combined with existing factual studies on graywater and legislation that calls for the development of guidelines for graywater reuse creates a platform for introducing the concepts to the public for feedback. It is important to remember that using dual systems may cause the price of water to rise.

Water resource planning also calls for a statewide authority to set aside parcels of land that will not be developed but held for future use. These parcels of land will be used for reservoirs, dams, and off stream water storage. The state needs to play a role in water storage because this issue crosses local jurisdictional boundaries. State regulations require that when critical usage levels are reached, planning be initiatied for new water sources. Water impoundment areas need to be designated regionally so the land will not be developed. Effective water resource planning now could prevent serious water shortages in the future.

Virginia Center for Community Health

Increasing the opportunities for public health research in Virginia is critical to strengthening the public health infrastructure in the future. The Virginia Center for Community Health was proposed by the Turning Point workgroups and supported by the Steering Committee to address deficiencies in community health research and be an advocate for community health initiatives across Virginia.

The Center would exist as an entity with a specific mission governed by a board of directors that represents a broad spectrum of sectors interested in community health; public health, academic medical centers, hospitals and health systems, health plans, businesses, state and local government, and community-based organizations.

The primary mission of this organization is to continue the work of Turning Point and provide a structure to maintain effective partnerships between the public and private sector. The Center would study the costs, benefits, and long term implications of health policy decisions related to public health. The ultimate goal is to improve health in every Virginia community.

The Virginia Center for Community Health will be a not-for-profit organization established to facilitate and promote collaborative community health efforts among disparate groups. It will be a clearinghouse for funding and research that supports its mission. The Center will be an integral part of completing the *Turning Point* community health improvement implementation strategy and work on social marketing and public health leadership development issues with other states.

NEW CENTURY PARTNERSHIP

The New Century *Turning Point* Partnership has had an extremely active and progressive year. In fact, achievement has surpassed expectations in several areas, while there have been some challenges and disappointments as well. This report will briefly outline the progress and areas of improvement for the second year of the three-year *Turning Point* planning process.

The Position Paper

During the national *Turning Point* conference in Phoenix, members of the Partnership began drafting a working paper that would define the guiding principles and measure the outcomes from the *Turning Point* process. The steering committee worked through seven formal drafts of the working paper before approving the current document, known as the position paper, in March of 1999. The working paper process was a beneficial exercise; the process allowed less knowledgeable committee members to become more thoroughly familiar with the *Turning Point* purpose and mission, while also providing a formal process for dealing with differing opinions and resolving them by consensus. Several drafts were reviewed using the technology of the Internet and several drafts, including the final version, were reviewed during regularly scheduled steering committee meetings.

The New Century *Turning Point* Partnership was inspired to write the position paper in order to outline expectations and overall goals on the front end, so as to avoid misunderstanding along the way. The steering committee felt it was important to individualize a guiding document paper because, until April 1999, there were no national guiding documents available. Also, it was important to fully encompass the community health issues in the New Century Region of Southwest Virginia (A 12-county, 5-city region in rural Virginia with a total population of approximately 500,000).

The position paper defines the mission, the approach for achieving the mission, unifying themes, organizational structure, process, outcomes, evaluation, steering committee role, task forces, priorities and action plans, role of the consultants and the budget.

Community Health vs. Public Health

As with many partnerships, the New Century Partnership wrestled with the notion of public health and how to best define it. With the broad representation of the steering committee (three public health districts, four hospitals, business leaders, educators and community volunteers) consensus was quickly reached to broaden the conventional definition of public health to encompass the broader health of the overall community, which was ultimately termed "community public health."

Systems Change

Throughout the process, the steering committee has been focused on transforming and strengthening the community health systems and has made a conscious connection between health and wellness to quality of life and economic development for the region. Focusing on systems change has not been an easy and

natural thing to do. The partnership has found it more natural to think in terms of incremental change or additional layers of process; accordingly, it has required effort to maintain a focus on true systems change.

For example, through the connections of one of the co-chairs, the Partnership has applied to become a test region for the APEX-CPH (Assessment and Planning Exercise through Community Partners for Health) strategic planning model. During the steering committee discussions about participation as a test site and, perhaps ultimately, as an implementation site, there were discussions about funding a position or positions to oversee the participation in the APEX-CPH pilot. During the discussion, the issue of reallocation of existing resources came to light and the consensus shifted from searching for additional funding to add an important new project to true systems change (re-prioritizing existing functions and freeing up resources to permit a new way of doing things).

True Collaboration

One of the best examples of success and true collaboration among competing members of the steering committee is the joint community needs assessment model that has been developed and endorsed by the two competing hospitals organizations in the region. One of the hospitals was using an assessment tool that did not mesh well with the Centers for Disease Control and Prevention data and another had not developed an assessment model for Roanoke. Collaboration resulted in an improved assessment tool that was used in 5 rural counties in the New River Valley section of the New Century Region, thereby providing compatible data throughout the Region. Importantly, the assessment tool enables the collection of primary data in addition to secondary data. Again, this is counted as one of the most significant early achievements resulting from the *Turning Point* process.

Other Notable Connections to *Turning Point*

Other notable achievements that are directly connected to the *Turning Point* collaboration include a speech on data to the Virginia Hospital Association, a speech on the New Century Vision and the *Turning Point* initiative to the State Board of Health, assistance with a Robert Wood Johnson site visit to the State's *Turning Point* initiative, a potential joint project on worksite injuries with the Blue Ridge Regional Health Care Coalition, and a financial contribution to the first "Faith, Health, and Community Life" symposium.

The New Century Region enjoys a number of regional assets, among them Virginia Tech, the only land grant university in the Commonwealth. Among the many programs included in the university is the Institute for Community Health, Recently, the *Turning Point* steering committee has partnered with the Institute for Community Health and is working closely with its director (who serves on the steering committee) and two of its key individuals (who will assist with the preparation of the implementation plan funding request). This collaboration can be considered a notable accomplishment of the *Turning Point* Initiative during 1999.

Moving Forward with the Planning Process

The position paper established five task forces to focus on key areas of interest. These were defined as Environmental, Education and Training, Access to Health Care, Community Needs Assessment, and Health Promotion.

Specific issues were identified for each task force and, during the course of the task force meetings, several additional issues have been identified. Task Force Chairs and co-chairs have been identified as well as task force committee members. One of the additional benefits of the task force structure was that it enabled the

Turning Point initiative to include many more individuals and organizations than was feasible for the steering committee, which already has 27 members.

The task forces have been meeting and were charged with developing plans and recommendations for specific project initiatives for the year 2000. Initially, every task force struggled with how to deal with their assignment. Without specific guidelines and criteria, even though specific issues had been suggested, the task force chairs and co-chairs struggled with how to make sense out of their task.

One of the task force co-chairs, the dean of the college of health and human services for one of the state universities, suggested a matrix format that was readily adopted by a committee of the task force chairs. This matrix outlined the various objectives, action steps, responsible parties, time frames, resources, funding sources and status of each goal being developed by the task force. Importantly, the matrix provided much-needed structure and a consistent approach to planning among all five task forces. Perhaps even more importantly, the matrix solution symbolizes the importance of communication and collaboration, which leads to consensus and implementation. At the most recent joint meeting of the five task force chairs, it became evident that there is natural connectivity between several initiatives being developed that cuts across the lines of the task force.

Specific Planning Outcomes

Each of the five task forces is honing in on priority projects that can guide the implementation phase of the *Turning Point* initiative during the third year. Examples of these projects include: efforts to improve communications between various state agencies having a stake in community health, curriculum changes of K-12 that focus on wellness, higher education collaborations on clinical training, methods for improving the communications of health and wellness issues to the broader community, and solving the incompatibility among existing community health data systems. It is expected that the steering committee will evaluate and prioritize the recommendations of the task forces into a specific implementation plan to guide the *Turning Point* process into the next year.

Funding and Human Resources

The New Century *Turning Point* Partnership has been fortunate to receive funding support from four entities: Kellogg/NACCHO; the Foundation for Regional Excellence; the Carilion Community Health Fund; and the Columbia/HCA. The total budget for the Partnership is $64,000 and it is expected that at least that much is being contributed as in-kind services by the leadership and consultants involved in *Turning Point*.

Areas of Improvement

During the year, we have identified several areas that could be improved. The idea of consistency among the Lewin Group interviewers (charged with evaluating the initiative) would assist in alleviating duplication in interview questions. This should benefit the partnerships through better utilization of time. The issue of TPNET, the *Turning Point* intranet, and a more efficacious plan for partnering would be of assistance. More communication among the local partners and the state partners would be beneficial to the total process of reaching *Turning Point* goals effectively. Often, there was a sense of frustration with too much material from the National level. In general, it appears that too many resources have been allocated to the hierarchy and the infrastructure of the *Turning Point* project and not enough has been allocated at the grass roots level.

NORFOLK PARTNERSHIP

The Norfolk *Turning Point* Partnership (NTTP) accomplished three of its major goals:

- the generation of community-wide public awareness and participation in the *Turning Point* process;
- the establishment of an effective public-private partnership; and
- the identification and use of Community Health Status Indicators.

A foremost outcome within the partnership is the determination to maintain NTPP on a long term basis, and to sustain NTPP for the future through Norfolk City backing, including policy discussions and resources.

The NTPP members have worked toward a common understanding of what constitutes public health through five Areas of Inquiry (AOI) serving as discussion groups, through community focus groups, surveys, and data collection. The five AOIs are Education, Environment, Civic/Community based leagues and groups, Business/Industry, and Government/Policy/Military. A Web based environmental concern survey on the city web site was used as one avenue for input; another was a focus group with city youth leadership. The original brochure on NTPP goals has been supplemented by a booklet on Norfolk Health Status Indicators, which is used as a tool to open discussions on public health needs and strategies. The NTPP has begun using the NACCHO sponsored telecast "Race, Class and Health" to augment discussion of approaches to disparities.

The Norfolk *Turning Point* Partnership believes that changes in capacity test the vigor of the human and material resources necessary to meet public health obligations, and are concentrated in four major areas: delivery systems, public policy, the workforce, and support systems such as training, research, technical and information assistance.

The Virginia *Turning Point* Partnership ranked three National Excellence Collaboratives for Virginia's Public Health Improvement Plan: Leadership Development, Social Marketing, and Information Technology. The NTPP activities to date and plans for the future interconnect with and support these priorities.

Through NTPP discussions and presentations, the concept of a community health center is being explored and developed as a potentially viable model for collaborative action. Norfolk has demonstrated a willingness to support diverse models of care, including blended opportunities such as time and space sharing, and *Turning Point* has offered a forum for facilitation of feasibility issues.

NTPP recognizes the necessity of assessing how the partnership is actually influencing the policies operative within each partner's sphere, and the impact that the *Turning Point* philosophy and ideals have in the day to day arena. Citizen and advocacy group involvement in local code review has been supported and used to strengthen relationships and roles, and understanding of decision-making processes.

The increased involvement of students at all levels, and especially graduate students from area universities, is building meaningful future capacity and workforce. Students were integral to the development of the

community health indicator booklet, surveys, and community health planning processes such as local emergency planning.

Partnership activities demonstrated how various interested parties, who join forces to discuss the city's public health can enrich and help each other. An example was the provision of updated health education texts to a middle school by the medical school when such a need was noted by NTPP members. Involvement of those already employed has also been supported through activities with planning import such as team attendance at a combined National League of Cities and CityMatch (local maternal and child health directors) meeting. During this event, the joint interest from the civic and the health perspectives in problem solving was demonstrated. Such activities show the critical nature of public health in the city's daily operational life, and the multidisciplinary nature of the civic learning environment. NTPP supported the extension of regional surveillance planning for arboviral disease and mosquito control as a demonstration of capacity building in a specific technical area. This collaboration brought together new jurisdictions beyond those that came together in the first two years.

The partnership has used every opportunity to promote the goals espoused. Five specific initiatives have emerged for special focus in the third year. These are a youth leadership initiative, citizen and neighborhood academies, graduate student involvement, the use of health indicators to leverage commitment to change efforts, and concentration on reaching those with unheard voices.

PRINCE WILLIAM PARTNERSHIP

Prince William Partnerships for Health is a community coalition comprised of representatives of public health, health care, not-for-profit organizations, volunteer organizations, mental health, special interest groups, education, elected officials, and the faith community. The goals of the Partnership are:

- Involve and engage the entire Prince William community in public health and health activities
- Assess the community health system in the Prince William Area
- Redefine appropriate public health functions
- Develop a community health improvement plan that integrates public health, clinical health, and environmental health
- Facilitate new, non-traditional partnerships and strengthen existing partnerships
- Stimulate appropriate systems changes to improve the health of our community

The Partnership has enjoyed a very successful 1999 and has made significant progress in community awareness, assessment, and community engagement. Some of the highlights of our activities are outlined in this progress report.

Community awareness has been an important focus area for the Partnership because of the importance of involving the community in the development of our health improvement plan. In 1999, the Partnership sponsored a successful press conference at the Manassas Mall which highlighted children's views of a healthy community. The press and over 30 community members were treated with speeches by The Honorable Hilda Barg of the Prince William Board of Supervisors, Dr. Catherine Malloy of George Mason University and Rabbi Jonathan Katz of Prince William Interfaith Volunteer Caregivers. Press conference attendees and shoppers enjoyed a display of children's pictures and drawings for over one week. This important event kicked off the year for the Partnership and resulted in two front-page newspaper articles, a follow-up article, one television interview, one radio interview, and a continuing relationship with our local media.

Members of the Partnership continued the community awareness campaign by giving over 20 presentations to local agencies and organizations (e.g., Chamber of Commerce Dialogue 2000, Virginia Public Health Association). The Partnership was also privileged to be invited to give presentations in several national venues including: Centers for Disease Control and Prevention Director's Briefing, Public Health Prevention Service Annual Conference (CDC), *Turning Point* Forum, and the American Public Health Association Annual Conference.

A primary concern of the Partnership since its inception has been the involvement of the citizens of Prince William, Manassas, and Manassas Park, in redefining public health functions and making systems change recommendations. The Partnership focused a great deal of attention and resources to ensuring this input by sponsoring a series of thirty focus groups. The questions for the focus groups were developed over a three-month period by over 40 individuals. The questions were designed to stimulate discussion on systems issues

and public health functions. Each question was posed to groups of professionals with experience in the area of discussion and to the general public. Focus groups were designed to be geographically and demographically representative of the community. The focus groups were facilitated by professionals from the Center for the Advancement of Public Health at George Mason University. The groups were completed in late August and results are currently available.

In addition to the information collected through the focus groups, the Partnership has conducted over 60 interviews with agency and organization directors about each of the programs they offer (n>400). The interviews collected information on the following:

- Services provided by the program
- Populations served by the program
- Types of data collected by the program
- If and how information is shared with other programs and the public
- Kinds of data needed for more effective decision making
- Partnerships
- Purposes of each partnership

The interview information will be used in conjunction with the focus group data to inform seven workgroups that are charged with developing strategies for the community health improvement plan. These seven workgroups focus on the following areas:

- Personal health
- Population health
- Environmental health
- Development
- Business
- Schools
- Government

Each group will be responsible for developing three short-term, three intermediate-term, and three long-term strategies for systems change based on information from the focus groups and interviews.

In addition to these highlights, the Partnership has enjoyed increased communication with our State Coalition. The Partnership has representation on the State Steering Committee and participated in two state sponsored activities, a conflict negotiation training and a scenario planning exercise. The Partnership also made a joint presentation with the State Coordinator at the National *Turning Point* Forum.

For more information on Prince William Partnerships for Health, please contact Daniella Prepis at 703-792-6755 or via email at dprepis@vdh.state.va.us.

TURNING POINT CONCLUSION

By all accounts, *Turning Point* has had a very successful two years. When we embarked on this journey two years ago we knew the process was ambitious. No one expected *Turning Point* to generate all the answers but we did get to the bottom of several critical issues for public health.

Thousands of Virginians have been touched by this initiative. Presentations explaining the grant process and its goals were conducted before dozens of groups both within the Virginia Department of Health and external organizations. *Turning Point* reached 800 individuals through our telephone survey, 50 community leaders in the key informant discussion groups, 350 at seven regional forums across the state. Interim reports were distributed to over 3000 Virginians. In the second year, responding to questions about how *Turning Point* heard from public health customers, 2500 Virginia Department of Health consumers in offices, clinics, on-site visits were surveyed to gain their feedback on public health activities. Sixty individuals served on workgroups and 25 were members of the Steering Committee that guided this process from start to finish.

Clearly, our efforts focused on outreach and analysis. We kept asking the questions, "what are your most pressing health concerns" and "how do you thing those concerns should be addressed." We were surprised by what we found, it changed the way we think about public health. Unfortunately, the general public is unaware of the breadth of programs and services provided by public health agencies. Decision-makers at the state and local level are similarly unclear about the value of prevention activities in terms of overall health of a population. *Turning Point* seeks to change that.

Creating a road map for strengthened public health is difficult unless you know where you are going. *Turning Point* engaged in a process to envision success, identify trends and forces that affect public health and develop strategies to achieve the goals. This scenario planning exercise crystallized the vision of the Steering Committee and provided some clearly marked "roads" for workgroup members to follow as they proposed steps to strengthen public health.

Turning Point also reached out to national consultants to find out how well public health is doing. In terms of public health law, Virginia is ahead of the curve. That is promising because public health practice is based in law. We also posed that same question in regards to assessment, policy development and assurance, the core public health functions. Given our size and organizational structure, Virginia is merely average. It is unfortunate that a state that prides itself on overall quality of life is merely average in terms of efforts to advance community health. We have work to do.

Like many other planning initiatives, there were original proposed activities that were not completed. Typically, these were due to adjustments made throughout the process and simple timing issues. Systems change takes time. The process must be flexible to respond to changes that take place and new issues that are identified throughout the process. No one knew if *Turning Point* would create a whirlwind of activity to address public health deficiencies. We did.

Some specific *Turning Point* accomplishments:

- Identified critical areas that desperately require resolution
- Impacted the internal strategic plan of the Virginia Department of Health
- Created a closer working relationship between the Virginia Department of Health and statewide health organizations
- Educated critical stakeholders on the importance of public health activities
- Found that ongoing community health assessment and planning processes are critical in Virginia

Turning Point will continue. Virginia has applied for implementation funds from the Robert Wood Johnson foundation. This next phase of *Turning Point* will encompass a four year process to bring a community health needs assessment to all 35 health districts, complete a cost/benefit analysis of prevention activities and prepare a public awareness campaign around the results. In addition, there are collaborative activities in social marketing and leadership development that Virginia will participate in with other states to draw national attention to these complex community health issues.

The health of the entire community makes Virginia a great place to live, work and raise a family. It is not perfect. *Turning Point* is working to make it better for all Virginians.

For those who participated in this effort at any level, thank you. The health of any Virginia community is our responsibility - collectively. *Turning Point* has attempted to raise awareness of the need for a strong public health system. Only time will tell if our endeavors were successful. To not address gaps in public health service only delays the inevitable. As in the past, there will again come a time when a strong public health infrastructure will be needed. The only question is - will we proactively invest in that system now. If we do not, a future price will be paid. It is unknown what the cost will be. A failed water system, communicable disease outbreak, or lost productivity due to chronic disease wreaks havoc on our community. There are ways to improve the health of the community and not all of them are costly or require government to step in. Virginia should take steps now to improve health. The old adage is still true; "an ounce of prevention is worth a pound of cure."

ACKNOWLEDGEMENTS

THANK YOU

The Virginia State Turning Point Partnership would like to thank everyone who participated in the Turning Point strategic planning initiative. The following individuals and organizations provided a special contribution to make this project a success. Please accept our heartfelt gratitude for your input, opinions, analysis and support.

- The Honorable Claude A. Allen, Secretary of Health and Human Resources
- The Honorable Robert C. Metcalf, former Secretary of Health and Human Resources
- The Honorable Robert Bloxom, Delegate
- The Honorable Frederick Quayle, Senator
- Laurens Sartoris, President, Virginia Hospital & Healthcare Association
- Dr. E. Anne Peterson, State Health Commissioner
- Dr. Randolph Gordon, Former State Health Commissioner
- Dr. William Nelson, Former State Health Commissioner
- Lester Lamb, Steering Committee Chairman
- Christopher S. Bailey, Senior Vice-President, Virginia Hospital & Healthcare Association, Co-Liaison
- Jeffrey L. Lake, Associate Commissioner, Virginia Department of Health, Co-Liaison
- Norfolk Turning Point Partnership
- Prince William Partnerships for Health
- The New Century Council
- Sandee Johnson Bailey, Consultant
- Brian Dameier, Professional Research Consultants
- Robert Glenn and Beverly Fitzpatrick, the Issues Management Group
- Lawrence Gostin and James Hodge, Georgetown University
- Jane Norwood Kusiak, Consultant
- Jonathan C. Peck, Vice-President, Institute for Alternative Futures
- Katie Roper, Advantage Creative Services
- Dr. Bernard Turnock, University of Illinois-Chicago